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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 8 APR 28 ENCOMPAT/ENCOMPAT2 search fields enhanced
NEWS 9 APR 28 Limits doubled for structure searching in CAS REGISTRY
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NEWS 15 MAY 28 CAS databases on STN enhanced with NANO super role in records back to 1992
NEWS 16 JUN 01 CAS REGISTRY Source of Registration (SR) searching enhanced on STN
NEWS 17 JUN 26 NUTRACEUT and PHARMAML no longer updated
NEWS 18 JUN 29 IMSCOPROFILE now reloaded monthly
NEWS 19 JUN 29 EPFULL adds SLART to AB, MCLM, and TI fields

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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FILE 'HOME' ENTERED AT 17:34:05 ON 29 JUN 2009

=> file reg
 COST IN U.S. DOLLARS
 FULL ESTIMATED COST

	SINCE FILE	TOTAL
	ENTRY	SESSION
	0.22	0.22

FILE 'REGISTRY' ENTERED AT 17:34:14 ON 29 JUN 2009
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STRUCTURE FILE UPDATES: 28 JUN 2009 HIGHEST RN 1160218-33-6
DICTIONARY FILE UPDATES: 28 JUN 2009 HIGHEST RN 1160218-33-6

New CAS Information Use Policies; enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stn/gen/stndoc/properties.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10594744\Struc 2.str



chain nodes :
19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18
chain bonds :
1-5 2-6 18-19
ring bonds :
1-2 1-4 2-3 3-18 4-18 5-7 5-11 6-12 6-16 7-8 8-9 9-10 10-11 12-13
13-14 14-15 15-16
exact/norm bonds :
1-2 1-4 1-5 2-3 2-6 3-18 4-18 18-19
normalized bonds :
5-7 5-11 6-12 6-16 7-8 8-9 9-10 10-11 12-13 13-14 14-15 15-16

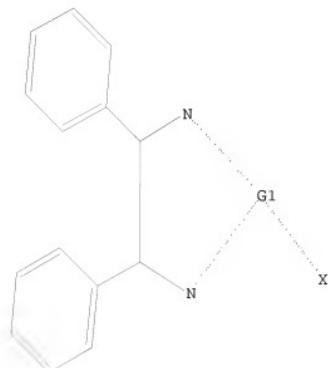
G1:Ir,Rh,Ru

10594744a.trn

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 18:Atom 19:CLASS

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



G1 Ir,Rh,Ru

Structure attributes must be viewed using STN Express query preparation.

=> l1
SAMPLE SEARCH INITIATED 17:34:40 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 112 TO ITERATE

100.0% PROCESSED 112 ITERATIONS 23 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1606 TO 2874
PROJECTED ANSWERS: 173 TO 747

L2 23 SEA SSS SAM L1

=> l1 full
FULL SEARCH INITIATED 17:34:45 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2455 TO ITERATE

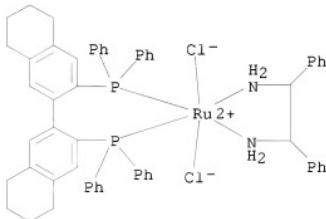
100.0% PROCESSED 2455 ITERATIONS
 SEARCH TIME: 00.00.01

461 ANSWERS

L3 461 SEA SSS FUL L1

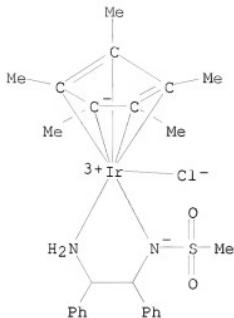
=> d scan

L3 461 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
 IN INDEX NAME NOT YET ASSIGNED
 MF C58 H56 Cl2 N2 P2 Ru
 CI CCS



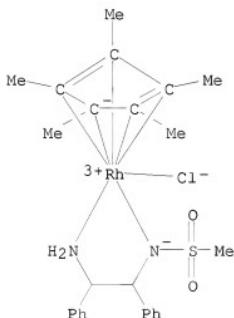
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 461 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
 IN Iridium, [N-((1S,2S)-2-(amino-κN)-1,2-diphenylethyl)methanesulfonamido-κN]chloro[(1,2,3,4,5-η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]-, stereoisomer
 MF C25 H32 Cl Ir N2 O2 S
 CI CCS



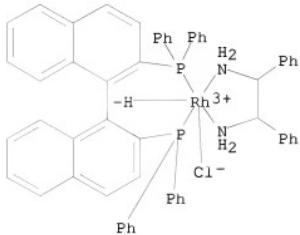
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 461 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Rhodium, [N-[(1S,2S)-2-(amino- κ N)-1,2-diphenylethyl]methanesulfonamido- κ N]chloro[(1,2,3,4,5- η)-1,2,3,4,5-pentamethyl-2,4-cyclopentadien-1-yl]-
MF C25 H32 Cl N2 O2 Rh S
CI CCS



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

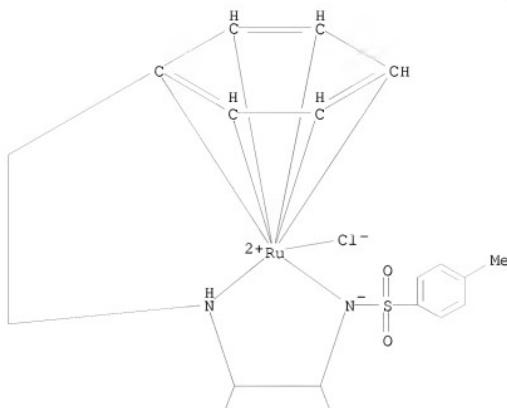
L3 461 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Rhodium(1+), [1,1'-(1R)-{1,1'-binaphthalene}-2,2'-diylbis{1,1-diphenylphosphine- κ P}]chloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine- κ N1, κ N2]hydro-, (OC-6-43)-
MF C58 H49 Cl N2 P2 Rh
CI CCS, COM



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 461 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Ruthenium, chloro[N-((1R,2R)-1,2-diphenyl-2-[{2-(η 6-phenyl)ethyl]amino- κ N]ethyl)-4-methylbenzenesulfonamido- κ N]-
MF C29 H29 Cl N2 O2 Ru S
CI CCS

PAGE 1-A



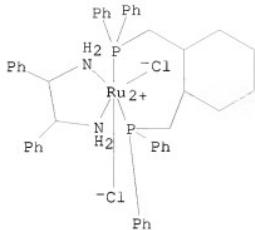
PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 461 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
 IN Ruthenium, dichloro[1,1'-($(1S,2S)-1,2-$
 cyclohexanediyilbis(methylene)]bis[1,1-diphenylphosphine- $\kappa\text{P}]$ [(1R,2R)-
 1,2-diphenyl-1,2-ethanediamine- $\kappa\text{N}1,\kappa\text{N}2]$ -, (OC-6-32)-
 MF C46 H50 Cl2 N2 P2 Ru
 CI CCS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	186.36	186.58

FILE 'CAPLUS' ENTERED AT 17:35:42 ON 29 JUN 2009
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FILE COVERS 1907 - 29 Jun 2009 VOL 151 ISS 1
FILE LAST UPDATED: 28 Jun 2009 (20090628/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

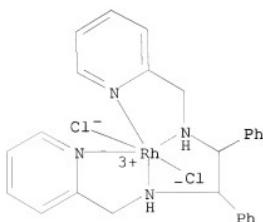
<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> 13
L4 337 L3

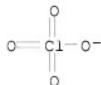
=> d ibib abs hitstr 337

L4 ANSWER 337 OF 337 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1988:642931 CAPLUS
DOCUMENT NUMBER: 109:242931
ORIGINAL REFERENCE NO.: 109:39991a,39994a
TITLE: Chiral metal complexes. 26. Metal complexes of the new stereospecific tetraamine ligand 3R,4R- and 3S,4S-diphenyl-1,6-di(2-pyridyl)-2,5-diazahexane
AUTHOR(S): Fenton, Ronald R.; Vagg, Robert S.; Williams, Peter A.
CORPORATE SOURCE: Sch. Chem., Macquarie Univ., 2109, Australia
SOURCE: Inorganica Chimica Acta (1988), 148(1), 37-44
CODEN: ICHAA3; ISSN: 0020-1693
DOCUMENT TYPE: Journal
LANGUAGE: English
AB (RCH₂NHCHPh)₂ (R = 2-pyridyl) (picstien), based on stilbenediamine, was prepared in its racemic and enantiomeric forms. R,R-Picstien coordinates to Co(III) to give A-β-[Co(R,R-picstien)Cl₂]X_nH₂O (X = Cl, ClO₄) stereospecifically; the complexes were characterized by NMR and chiroptical properties. The chloride donors in this cation undergo substitution by NO₂- or C₂O₄²⁻ with full retention of its A-β topol. A Rh(III) analog of the dichloro complex also was isolated, and this has the same stereochem. The S,S antipode of the ligand was used to generate corresponding enantiomeric chelate forms.
IT 117802-85-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and NMR and CD of)
RN 117802-85-4 CAPLUS
CN Rhodium(1+), dichloro[1,2-diphenyl-N,N'-bis(2-pyridinylmethyl)-1,2-ethanediamine-N,N',N'',N''']-, stereoisomer, perchlorate (9CI) (CA INDEX NAME)
CM 1
CRN 117802-84-3
CMF C26 H26 Cl2 N4 Rh
CC1 CCS



CM 2

CRN 14797-73-0
CMF Cl O4



=> file reg		SINCE FILE	TOTAL
COST IN U.S. DOLLARS		ENTRY	SESSION
FULL ESTIMATED COST		6.64	193.22
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		SINCE FILE	TOTAL
CA SUBSCRIBER PRICE		ENTRY	SESSION
		-0.82	-0.82

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STRUCTURE FILE UPDATES: 28 JUN 2009 HIGHEST RN 1160218-33-6
DICTIONARY FILE UPDATES: 28 JUN 2009 HIGHEST RN 1160218-33-6

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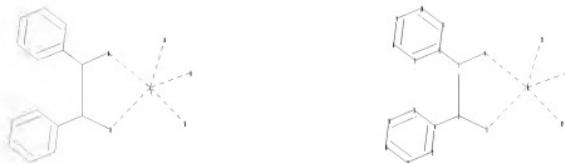
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>
Uploading C:\Program Files\Stnexp\Queries\10594744\Struc 3.str



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chain nodes :
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ring nodes :
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chain bonds :
1-5 2-6 18-19 18-20 18-21
ring bonds :
1-2 1-4 2-3 3-18 4-18 5-7 5-11 6-12 6-16 7-8 8-9 9-10 10-11 12-13
13-14 14-15 15-16
exact/norm bonds :
1-2 1-4 1-5 2-3 2-6 3-18 4-18 18-19 18-20 18-21
normalized bonds :
5-7 5-11 6-12 6-16 7-8 8-9 9-10 10-11 12-13 13-14 14-15 15-16
```

G1:Ir,Rh,Ru

10594744a.trn

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 18:Atom 19:CLASS 20:CLASS
21:CLASS

L5 STRUCTURE UPLOADED

=> s 15 sub=13 sss sam
SAMPLE SUBSET SEARCH INITIATED 17:38:05 FILE 'REGISTRY'
SAMPLE SUBSET SCREEN SEARCH COMPLETED - 23 TO ITERATE

100.0% PROCESSED 23 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE **COMPLETE**
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 173 TO 747
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 3 TO 163

L6 3 SEA SUB=L3 SSS SAM L5

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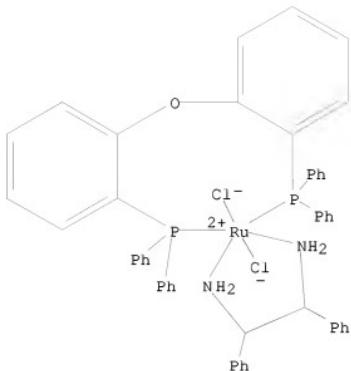
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SEARCH TIME: 00.00.01

L7 30 SEA SUB=L3 SSS FUL L5

=> l3 not l7
L8 431 L3 NOT L7

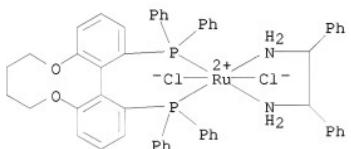
=> d scan

L8 431 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
κN1,κN2][1,1'-(oxydi-2,1-phenylene)bis[1,1-diphenylphosphine-
κP]]-, (OC-6-13)-
MF C50 H44 Cl2 N2 O P2 Ru
CI CCS



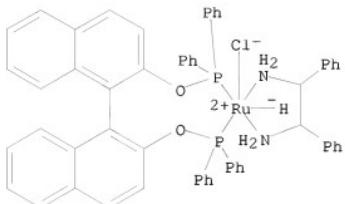
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L8 431 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Ruthenium, dichloro(1,2-diphenyl-1,2-ethanediamine-
κN1,κN2)[1,1'-(14aR)-6,7,8,9-
tetrahydronbzeno[b,d][1,6]dioxa-1,14-diyl]bis[1,1-diphenylphosphine-
κP]-, (OC-6-13)-
MF C54 H50 Cl2 N2 O2 P2 Ru
CI CCS



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L8 431 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Ruthenium, [(1R)-[1,1'-binaphthalene]-2,2'-diyl
bis(diphenylphosphinite-κP)]chloro[(1R,2R)-1,2-diphenyl-1,2-
ethanediamine-κN,κN']hydro-, (OC-6-43)- (9Cl)
MF C58 H49 Cl N2 O2 P2 Ru
CI CCS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>
Uploading C:\Program Files\Stnexp\Queries\10594744\Struc 4.str



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chain nodes :  
19  
ring nodes :  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 21 22  
chain bonds :  
1-5 2-6 18-19  
ring bonds :  
1-2 1-4 2-3 3-18 4-18 5-7 5-11 6-12 6-16 7-8 8-9 9-10 10-11 12-13  
13-14 14-15 15-16 18-20 18-21 20-22 21-22  
exact/norm bonds :  
1-2 1-4 1-5 2-3 2-6 3-18 4-18 18-19 18-20 18-21 20-22 21-22  
normalized bonds :  
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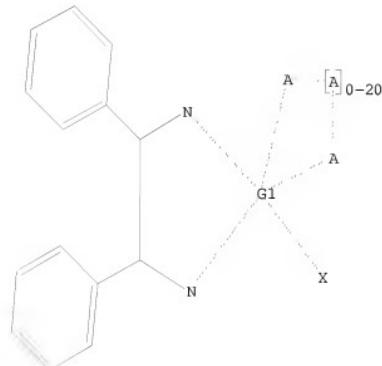
G1:Ir,Rh,Ru

10594744a.trn

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 18:Atom 19:CLASS 20:CLASS
21:CLASS 22:Atom

L9 STRUCTURE UPLOADED

=> d
L9 HAS NO ANSWERS
L9 STR



G1 Ir,Rh,Ru

Structure attributes must be viewed using STN Express query preparation.

=> s 19 sub=13 sss sam
SAMPLE SUBSET SEARCH INITIATED 17:40:59 FILE 'REGISTRY'
SAMPLE SUBSET SCREEN SEARCH COMPLETED - 23 TO ITERATE

100.0% PROCESSED 23 ITERATIONS 19 ANSWERS
SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE **COMPLETE**
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 173 TO 747
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 119 TO 641

L10 19 SEA SUB=L3 SSS SAM L9

=> s 19 sub=13 sss full
FULL SUBSET SEARCH INITIATED 17:41:08 FILE 'REGISTRY'

FULL SUBSET SCREEN SEARCH COMPLETED - 461 TO ITERATE
 100.0% PROCESSED 461 ITERATIONS 399 ANSWERS
 SEARCH TIME: 00.00.01

L11 399 SEA SUB=L3 SSS FUL L9

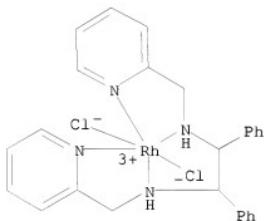
=> l11 not l3
 L12 0 L11 NOT L3

=> l3 not l11
 L13 62 L3 NOT L11

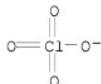
=> d scan

L13 62 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
 IN Rhodium(1+), dichloro[1,2-diphenyl-N,N'-bis(2-pyridinylmethyl)-1,2-ethanediamine-N,N',N'',N''']-, stereoisomer, perchlorate (9CI)
 MF C26 H26 Cl2 N4 Rh . Cl O4

CM 1

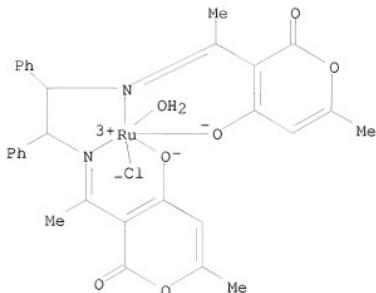


CM 2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L13 62 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
 IN Ruthenium, aquachloro[[3,3'-(1,2-diphenyl-1,2-ethanediyil)bis[(nitrilo-κN)ethyldyne]]bis[4-(hydroxy-κO)-6-methyl-2H-pyran-2-onato(2-)]], [OC-6-34-{S-(R*,R*)}]-(9CI)
 MF C30 H28 Cl N2 O7 Ru
 CI CCS



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	91.84	285.06
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	0.00	-0.82

FILE 'CAPLUS' ENTERED AT 17:41:41 ON 29 JUN 2009
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FILE COVERS 1907 - 29 Jun 2009 VOL 151 ISS 1
FILE LAST UPDATED: 28 Jun 2009 (20090628/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

CAplus now includes complete International Patent Classification (IPC)

reclassification data for the second quarter of 2009.

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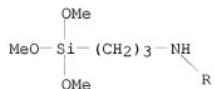
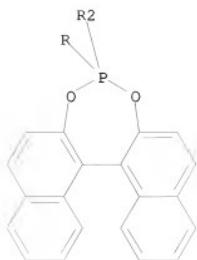
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=> 113
L14 42 L13

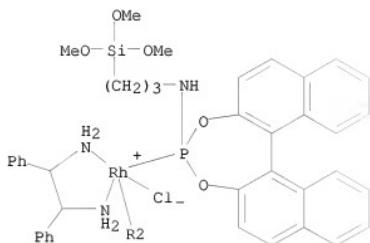
=> d ibib abs hitstr 1-42

L14 ANSWER 1 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2009:322536 CAPLUS
DOCUMENT NUMBER: 150:539377
TITLE: Mesoporous SBA-15-supported chiral catalysts:
Preparation, characterization and asymmetric catalysis
AUTHOR(S): Liu, Guohua; Liu, Mouming; Sun, Yunqiang; Wang,
Jianyao; Sun, Chuanshou; Li, Hexing
CORPORATE SOURCE: Department of Chemistry, College of Life and
Environmental Science, Shanghai Normal University,
Shanghai, 200234, Peop. Rep. China
SOURCE: Tetrahedron: Asymmetry (2009), 20(2), 240-246
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two mesoporous silica-supported chiral Rh and Ru catalysts with ordered
two-dimensional hexagonal mesostructures were prepared by directly post
grafting organometallic complexes RhCl[(R)-MonoPhos(CH₂)₃Si(OMe)₃]₂[(R,R)-
DPEN] and RuCl₂[(R)-MonoPhos(CH₂)₃Si(OMe)₃]₂[(R,R)-DPEN] (DPEN =
1,2-diphenylethylenediamine) on SBA-15. During the asym. hydrogenation of
various aromatic ketones under 40 atm H₂, both catalysts exhibited high
catalytic activities (> 97% conversions) and moderate enantioselectivities
(33-54% ee). Furthermore, the chiral Rh catalyst could be easily
recovered and used repetitively five times without significantly affecting
its catalytic activity and enantioselectivity. A catalytic comparison of
the mesoporous silica-supported chiral Rh catalyst prepared by a post
modification method is also discussed.
IT 1152161-66-4DP, silica-supported 1152161-67-5DP,
silica-supported
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)
(stereoselective hydrogenation of acetophenones on silica-supported
chiral ruthenium and rhodium catalysts)
RN 1152161-66-4 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A

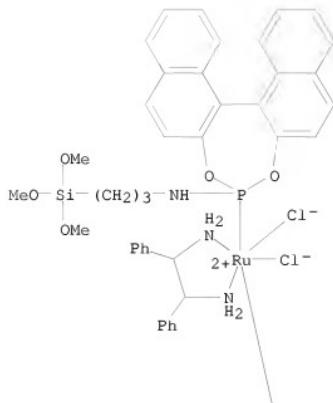


PAGE 2-A

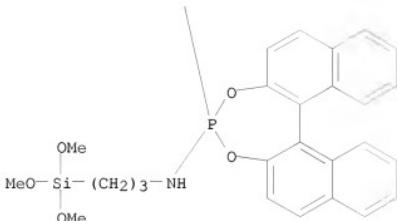


RN 1152161-67-5 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

PAGE 1-A



PAGE 2-A



REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1117981 CAPLUS

DOCUMENT NUMBER: 149:378379

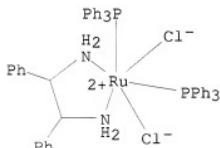
TITLE: Process for preparation of alcohols via hydrogenation of esters or lactones in the presence of a ruthenium phosphine amine catalyst.

INVENTOR(S): Ino, Yasunori; Yoshida, Akifumi; Kuriyama, Wataru
PATENT ASSIGNEE(S): Takasago International Corporation, Japan

SOURCE: Eur. Pat. Appl., 26pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1970360	A1	20080917	EP 2008-152538	20080310
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, AL, BA, MK, RS				
JP 2009096752	A	20090507	JP 2007-269229	20071016
JP 2008260758	A	20081030	JP 2008-55738	20080306
US 20080228012	A1	20080918	US 2008-76150	20080314
JP 2009001545	A	20090108	JP 2008-114075	20080424
PRIORITY APPLN. INFO.:			JP 2007-69201	A 20070316
			JP 2007-134905	A 20070522
			JP 2007-269229	A 20071016

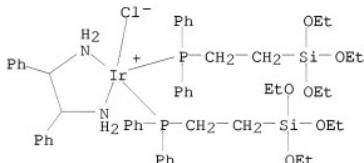
OTHER SOURCE(S): MARPAT 149:378379
 AB A method for producing alcs. comprises reducing esters or lactones with H2 gas in the presence of a catalyst comprising a ruthenium compound, a monodentate monophosphine or a bidentate bisphosphine, and an amine. The catalyst may be of the formula: RuXIX2(Lp)m(Lq)n [X1, X2 = anionic ligand; L = phosphine ligand; m = 1 when L is bidentate, while m = 2 when L is monodentate; Lq = amine ligand; n = 1 when L is bidentate, while n = 2 when L is monodentate]. Thus, phthalide was hydrogenated in the presence of RuCl2(dppe)(en) [dppe = 1,3-bis(diphenylphosphino)propane, en = ethylenediamine] and NaOMe in THF and 5 MPa at 100° for 18 h to give 99.5% conversion to 1,2-benzenedimethanol in >99% selectivity.
 IT 886446-25-9P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of alcs. via hydrogenation of esters or lactones in the presence of a ruthenium phosphine amine catalyst)
 RN 886446-25-9 CAPLUS
 CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN'bis(triphenylphosphine)-, (OC-6-13)- (9CI) (CA INDEX
 NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:866051 CAPLUS

DOCUMENT NUMBER: 150:351683
 TITLE: Enantioselective hydrogenation of aromatic ketones catalyzed by a mesoporous silica-supported iridium catalyst
 AUTHOR(S): Liu, Guohua; Yao, Mei; Wang, Jianyao; Lu, Xiaoquan; Liu, Mouming; Zhang, Fang; Li, Hexing
 CORPORATE SOURCE: Department of Chemistry, Shanghai Normal University, Shanghai, 200234, Peop. Rep. China
 SOURCE: Advanced Synthesis & Catalysis (2008), 350(10), 1464-1468
 CODEN: ASCAF7; ISSN: 1615-4150
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A mesoporous, silica-supported, chiral iridium catalyst with a highly ordered dimensional-hexagonal mesostructure was prepared by postgrafting the organometallic complex [(*i*-diphenylphosphino-2-triethylsilyl)ethane]((R,R)-1,2-diphenylethylenediamine)iridium chloride {IrCl[Ph₂(CH₂)₂Si(OEt)₃]₂[(R,R)-DPEN]} (DPEN = 1,2-diphenylethylenediamine) on SBA-15 silica. During the asym. hydrogenation of various aromatic ketones under 40 atm of hydrogen, the mesoporous, silica-supported, chiral iridium catalyst exhibited high catalytic activity (> 95% conversions) and excellent enantioselectivity ($\geq 99\%$ ee). The catalyst could be recovered easily and used repetitively seven times without significantly affecting the catalytic activity and the enantioselectivity.
 IT 1133881-42-1D, SBA-15-supported
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (enantioselective hydrogenation of aromatic ketones catalyzed by a mesoporous silica-supported iridium catalyst)
 RN 1133881-42-1 CAPLUS
 CN INDEX NAME NOT YET ASSIGNED



RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (enantioselective hydrogenation of arom. ketones catalyzed by a mesoporous silica-supported iridium catalyst
 REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:674920 CAPLUS
 DOCUMENT NUMBER: 149:32089
 TITLE: Hydrogenation of esters with ru/bidentate ligands

INVENTOR(S): Saudan, Lionel; Saudan, Christophe
 PATENT ASSIGNEE(S): Firmenich SA, Switz.
 SOURCE: PCT Int. Appl., 34pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008065588	A1	20080605	WO 2007-IB54746	20071122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
IN 2009KN01588	A	20090529	IN 2009-KN1588	20090428
PRIORITY APPLN. INFO.:			WO 2006-IB54449	A 20061127
			WO 2007-IB54746	W 20071122

OTHER SOURCE(S): MARPAT 149:32089

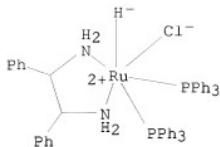
AB The present invention relates to processes for the reduction by hydrogenation, using mol. H₂, of a substrate containing one or two esters, or lactones, functional groups into the corresponding alc., or diol, said process is carried out in the presence of a base and at least one catalyst or pre-catalyst in the form of a ruthenium complex, [Ru(PP)(NN)S₂-nYn]Y_{2-n} [wherein PP = a C₆-60-diphosphine bidentate ligand (coordinated via two phosphine groups); NN = a C₃-40-bidentate ligand (coordinated through two amino groups and whereby at least one amine group is a primary amine); S = neutral Cl-26-neutral monodentate ligand; Y = H, halogen, BH₄, AlH₄, OH, Cl-6-alkoxy, carboxyl radical; n = 0, 1, 2] comprising at least one substituted α -carbon and one primary amine as one of the coordinating atoms. Thus, PhCO₂Me was hydrogenated over [RuCl₂{(R)-BINAP}((S,S)-DPEN)] in THF containing NaOMe to give 77% PhCH₂OH.

IT 1030633-32-9

RL: CAT (Catalyst use); USES (Uses)
 (hydrogenolysis catalyst; hydrogenation of esters and lactones with
 ruthenium bidentate ligands complexes)

RN 1030633-32-9 CAPLUS

CN Ruthenium, chloro(1,2-diphenyl-1,2-ethanediamine-
 κ N₁, κ N₂)hydribis(triphenylphosphine)- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008587307 CAPLUS

DOCUMENT NUMBER: 150:329267

TITLE: Asymmetric hydrogenation of acetophenone catalyzed by chiral Ru complex in mesoporous material supported ionic liquid

AUTHOR(S): Lou, Lan-Lan; Peng, Xiaojie; Yu, Kai; Liu, Shuangxi
CORPORATE SOURCE: Institute of New Catalytic Materials Science, College of Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China

SOURCE: Catalysis Communications (2008), 9(9), 1891-1893
CODEN: CCAOAC; ISSN: 1566-7367

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 150:329267

AB The chiral Ru complex was successfully immobilized inside the channels of four kinds of mesoporous materials with a method based on supported ionic liquid system. The prepared heterogeneous catalysts exhibited high activity and enantioselectivity in the asym. hydrogenation of acetophenone. Furthermore, these catalysts were stable and could be recycled at least four times without noticeable decrease in catalytic activity. And the SiO₂-supported catalyst exhibited the best stability.

IT 320338-32-7P

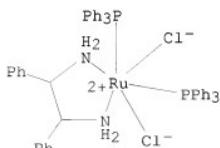
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);

USES (Uses)

(asym. hydrogenation of acetophenone catalyzed by chiral Ru complex in mesoporous material supported ionic liquid)

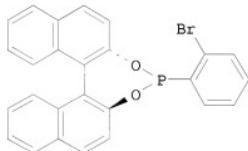
RN 320338-32-7 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN,κN']bis(triphenylphosphine)-, (OC-6-13)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

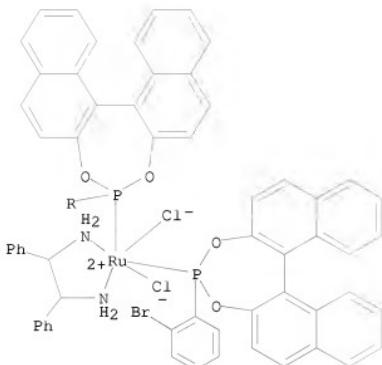
L14 ANSWER 6 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:66050 CAPLUS
 DOCUMENT NUMBER: 150:97626
 TITLE: The synthesis and application of BrXuPHOS: a novel monodentate phosphorus ligand for the asymmetric hydrogenation of ketones
 AUTHOR(S): Wills, Martin; Xu, Yingjian; Docherty, Gordon; Woodward, Gary
 CORPORATE SOURCE: Department of Chemistry, The University of Warwick, Coventry, CV4 7AL, UK
 SOURCE: Catalysts for Fine Chemical Synthesis (2007), Volume 5, 116-121. Editor(s): Roberts, Stanley M.; Whittall, John. John Wiley & Sons Ltd.: Chichester, UK.
 DOCUMENT TYPE: CODEN: 69KIGF Conference
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 150:97626
 GI



I

- AB The use of the monodentate phosphorus ligand BrXuPHOS I in a ruthenium complex furnishes a catalyst for the asym. hydrogenation of simple ketones.
 IT 798560-99-3P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of monodentate phosphorus ligand BrXuPHOS and use in Ru-catalyzed asym. hydrogenation of ketones)
 RN 798560-99-3 CAPLUS
 CN Ruthenium, bis[(11bS)-4-(2-bromophenyl)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphhepin-κP4]dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN1,κN2]-, (OC-6-13)- (CA INDEX NAME)

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REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

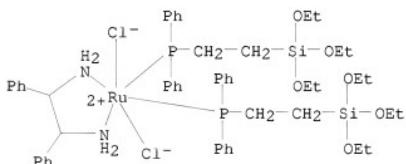
L14 ANSWER 7 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 200822564 CAPLUS
 DOCUMENT NUMBER: 148:284833
 TITLE: Facile synthesis of a mesoporous silica-supported catalyst for Ru-catalyzed transfer hydrogenation of ketones
 AUTHOR(S): Liu, Guohua; Yao, Mei; Zhang, Fang; Gao, Yan; Li, Hexing
 CORPORATE SOURCE: Department of Chemistry, College of Life and Environmental Science, Shanghai Normal University, Shanghai, Peop. Rep. China
 SOURCE: Chemical Communications (Cambridge, United Kingdom) (2008), (3), 347-349
 CODEN: CHCOFS; ISSN: 1359-7345
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 148:284833

AB A convenient method for preparation of a mesoporous silica-supported chiral catalyst by postgrafting a homogeneous catalyst on SBA-15 was developed and its application in the asym. transfer hydrogenation of aromatic ketones was investigated.

IT 1008530-86-6DP, silica-supported
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (preparation of a mesoporous silica-supported catalyst for Ru-catalyzed transfer hydrogenation of ketones)

RN 1008530-86-6 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
 $\kappa N1,\kappa N2]bis[diphenyl[2-(triethoxysilyl)ethyl]phosphine-$
 $\kappa P]-$, (OC-6-13)- (CA INDEX NAME)



RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prep. of a mesoporous silica-supported catalyst for Ru-catalyzed transfer hydrogenation of ketones)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

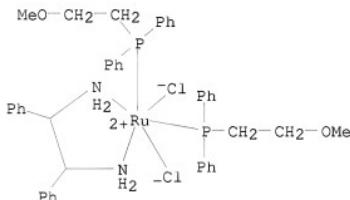
L14 ANSWER 8 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2007:362182 CAPLUS
 DOCUMENT NUMBER: 147:95222
 TITLE: Structural studies on ruthenium(II) complexes used in interphase catalysis for the hydrogenation of ketones
 AUTHOR(S): Krishnan, Venkata; Bertagnoli, Helmut
 CORPORATE SOURCE: Institute of Physical Chemistry, University of Stuttgart, Stuttgart, 70569, Germany
 SOURCE: Applied Organometallic Chemistry (2007), 21(3), 161-171
 CODEN: ACCHEX; ISSN: 0268-2605
 PUBLISHER: John Wiley & Sons Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Structural studies were performed on catalytically active ruthenium(II) complexes used in interphases, by means of XAFS spectroscopy. The EXAFS investigations indicate that the complexes retain their structural integrity when they are embedded on polysiloxane matrixes to form stationary phase materials. The AXAFS studies reveal that the variations in the catalytic activity of the complexes with different ligands can be correlated to the differences in the electronic structure around the active ruthenium center. The EXAFS investigations show that, in asym. transfer hydrogenation reactions catalyzed by ruthenium(II) complexes, the co-catalyst plays a crucial role not only in enhancing the catalytic

activity, but also in determining the structure of the intermediate species.
IT 942128-81-6

RL: CAT (Catalyst use); PRP (Properties); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(reaction with co-catalyst; EXAFS structural studies on ruthenium(II) complexes used in interphase catalysis for the transfer hydrogenation of ketones)

RN 942128-81-6 CAPLUS

CN Ruthenium, dichloro(1,2-diphenyl-1,2-ethanediamine- κ N, κ N')bis[(2-methoxyethyl)diphenylphosphine- κ P]-,
(OC-6-13)- (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 9 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:122373 CAPLUS

DOCUMENT NUMBER: 147:521925

TITLE: Asymmetric hydrogenation of 2-acetylnaphthalene catalyzed by RuCl₂[P(C₆H₅)₃]₂-(R,R)-DPEN

AUTHOR(S): Tao, Ming; Xiong, Wei; Chen, Hua; Li, Xianjun

CORPORATE SOURCE: Department of Biology and Chemistry, Xichang College, Xichang, Sichuan, 615022, Peop. Rep. China

SOURCE: Cuihua Xuebao (2006), 27(12), 1107-1110

CODEN: THHPD3; ISSN: 0253-9837

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

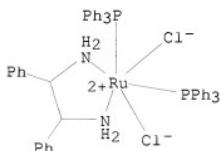
AB A novel ruthenium complex RuCl₂[P(C₆H₅)₃]₂-(R,R)-DPEN [*DPEN* = 1,2-diphenylethylenediamine; dichloro[(1*R*,2*R*)-1,2-diphenyl-1,2-ethanediamine- κ N, κ N'bis(triphenylphosphine)ruthenium] was synthesized and characterized by ¹H and ³¹P NMR. The ruthenium complex was applied to the asym. hydrogenation of 2-acetylnaphthalene. The effects of reaction temperature, hydrogen pressure, and molar ratio of base to catalyst on the activity and enantioselectivity were investigated in an isopropanol solution of (CH₃)₃COK. The results showed that the increase in the temperature and pressure accelerated the reaction but slightly decreased the enantioselectivity for (S)- α -(2-naphthyl)ethanol [i.e., (S)- α -methyl-2-naphthalenemethanol]. Under the conditions of acetyl naphthalene: (CH₃)₃COK:Ru = 50000:450:1 (molar ratio), 4 MPa, 25°, and 16 h, 83% ee and 100% yield of α -(2-naphthyl)ethanol were achieved.

IT 886446-25-9P, Dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
 $\kappa\text{N},\kappa\text{N}'\text{bis}(\text{triphenylphosphine})\text{ruthenium}$
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)

(preparation of dichloro[(R,R)-diphenylethanediamine-
 $\kappa\text{N},\kappa\text{N}'\text{bis}(\text{triphenylphosphine})\text{ruthenium}$ and study of its
 applicability as catalyst for stereoselective hydrogenation of
 acetylnaphthalene)

RN 886446-25-9 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
 $\kappa\text{N},\kappa\text{N}'\text{bis}(\text{triphenylphosphine})-$, (OC-6-13)- (9CI) (CA INDEX
 NAME)



L14 ANSWER 10 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 20061277528 CAPLUS

DOCUMENT NUMBER: 147:397121

TITLE: Phosphorus-31 NMR and FAB-Mass spectroscopies to confirm synthesis of diamine(diphosphine)ruthenium(II) complexes starting from diamine(ether phosphine)ruthenium(II) complexes via phosphine ligands exchanged

AUTHOR(S): Warad, Ismail; Al-Resayes, Saud I.

CORPORATE SOURCE: Department of Chemistry, Girls College at Hawtat Sudair, Saudi Arabia

SOURCE: Journal of Saudi Chemical Society (2006), 10(2), 285-294

PUBLISHER: CODEN: JSCSFO; ISSN: 1319-6103
 Saudi Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:397121

AB The ligands exchange of the ether-phosphine ($\text{Ph}_2\text{PCH}_2\text{CH}_2\text{OCH}_3$) on the diamine(etherphosphine)ruthenium(II) with 1,3-bis(diphenylphosphino)propane as a bidentate chelate ligand successfully occurs to produce diamine[1,3-bis(diphenylphosphino)propane]ruthenium(II) complexes in a good yields under vigorous stirring for one week in an inert atmospheric using CH_2Cl_2 as solvent. Several ether-phosphine-RuCl₂ complexes with different types of diamine were tested to confirm the substitution method. To collect more information about the system $^{31}\text{P}\{1\text{H}\}$ NMR and $^{13}\text{C}\{1\text{H}\}$ NMR as well as FAB-Mass spectroscopy were studied in parallel way to control and support the ligands exchange reaction processes.

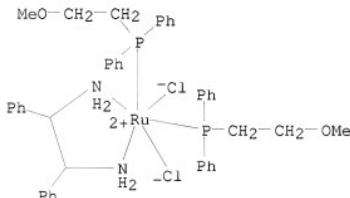
IT 942128-81-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of diamine(diphosphine)ruthenium(II) complexes starting from

diamine(ether phosphine)ruthenium(II) complexes via phosphine ligand exchanged)

RN 942128-81-6 CAPLUS

CN Ruthenium, dichloro(1,2-diphenyl-1,2-ethanediamine- κ N1, κ N2)bis[(2-methoxyethyl)diphenylphosphine- κ P]-, (OC-6-13)- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 11 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 20061268224 CAPLUS

DOCUMENT NUMBER: 146:206056

TITLE: Ru(II) complexes of cyclohexanediamine and monodentate phosphorus ligands for asymmetric ketone hydrogenation

AUTHOR(S): Xu, Yingjian; Docherty, Gordon F.; Woodward, Gary; Wills, Martin

CORPORATE SOURCE: Asymmetric Catalysis Group, Department of Chemistry, Warwick University, Coventry, CV4 7AL, UK

SOURCE: Tetrahedron: Asymmetry (2006), 17(20), 2925-2929

CODEN: TASYE3; ISSN: 0957-4166

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:206056

AB The incorporation of a trans-1,2-diaminocyclohexane in place of DPEN provides improvements in enantioselectivity to asym. ketone hydrogenation reactions using BrXuPHOS-Ru-diamine catalysts. Substrates containing halogenated aryl rings are particularly compatible with this catalyst, however, α -chlorinated ketones remain resistant to reduction under any conditions.

IT 798560-99-3

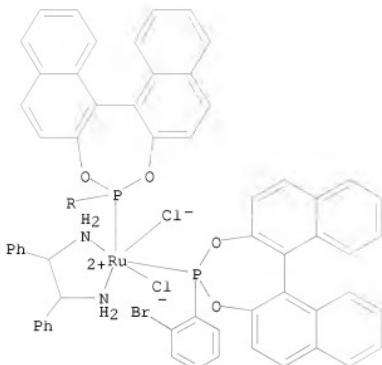
RL: CAT (Catalyst use); USES (Uses)

(Ru(II) complexes of cyclohexanediamine and monodentate phosphorus ligands for asym. ketone hydrogenation)

RN 798560-99-3 CAPLUS

CN Ruthenium, bis[(11bS)-4-(2-bromophenyl)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphhepin- κ P4]dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine- κ N1, κ N2]-, (OC-6-13)- (CA INDEX NAME)

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REFERENCE COUNT: 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 12 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2006:606687 CAPLUS
 DOCUMENT NUMBER: 145:83530
 TITLE: Tetradentate ligands and metal complexes thereof for asymmetric catalysis
 INVENTOR(S): Boaz, Neil Warren
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 22 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060135804	A1	20060622	US 2004-18287	20041221
WO 2006068879	A1	20060629	WO 2005-US45031	20051212

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
 KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
 MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
 SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN,
 YU, ZA, ZM, ZW
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-18287 A 20041221

OTHER SOURCE(S): CASREACT 145:83530; MARPAT 145:83530

AB This invention relates to novel, substantially enantiomerically pure tetradeятate ligands comprised of two phosphines and two secondary amines. These species have been used as ligands for metal catalysts for asym. reactions and have demonstrated good enantioselectivity, in particular as ruthenium complexes for asym. hydrogenation. Also disclosed are methods for making the ligands, corresponding catalyst complexes, and processes employing the ligands and catalysts. The ligands may be described by the general formula, R2P-L1-NH-L2-NH-L3-PR12 (R, R1 = independently branched or straight chain C1-20 alkyl, C3-8 cycloalkyl, C6-20 carbocyclic aryl, S, N, O containing C4-20 heteroaryl, etc.; L1, L2, L3 = enantiomerically pure same or different diradicals with branched or straight chain C1-20 alkyl, C3-8 cycloalkyl, C6-20 carbocyclic aryl, S, N, O containing C4-20 heteroaryl, metallocenylalkyl, etc.). Thus, reaction of N,N'-bis-[*(R*)-1[*(S*)-2-(*[3,5-dimethylphenyl]phosphino*)ferrocenyl]ethyl] (*S,S*)-1,2-cyclohexyldiamine (preparation given) with p-cymene ruthenium dichloride dimer in DMF at 100° for 1h gave 38% title catalyst, N,N'-bis[*(R*)-1[*(S*)-2-(*bis[3,5-dimethylphenyl]phosphino*)ferrocenyl]ethyl] (*S,S*)-1,2-cyclohexyldiamineruthenium(II) dichloride. Asym. hydrogenation of acetylferrocene using the prepared catalyst is also given.

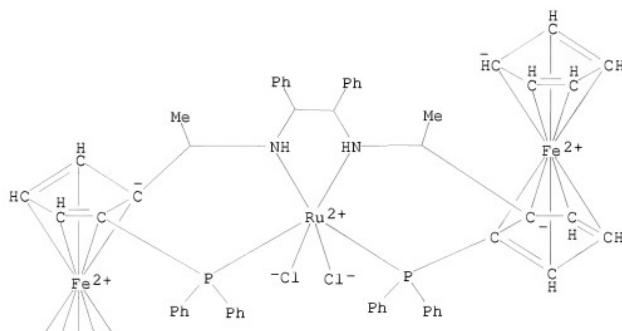
IT 893444-79-6P 893444-83-2P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of tetradeятate aminophosphinoferrocenyl ligands and their ruthenium complexes for asym. hydrogenation catalysis)

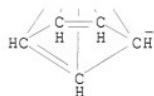
RN 893444-79-6 CAPLUS

CN Ruthenium, dichloro[(2*S*,2*'S*)-1,1''-[(*1R,2R*)-1,2-diphenyl-1,2-ethanediyl]bis[(imino- κ N)-(1*S*)-ethylidene]bis[2-(diphenylphosphino- κ P)ferrocene]]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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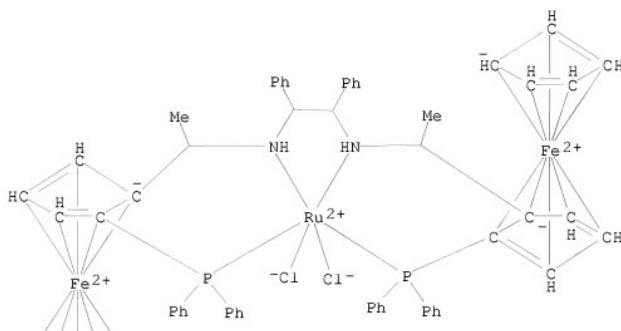
PAGE 2-A



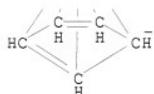
RN 893444-83-2 CAPLUS

CN Ruthenium, dichloro[(2*S*,2*'S*)-1,1''-[(*(1S,2S)-1,2-diphenyl-1,2-ethanediyl*]bis[*(imino-κN)-(1S)-ethylidene*]]bis[2-(diphenylphosphino-κP)ferrocene]-, (OC-6-13)- (9CI) (CA INDEX NAME)

PAGE 1-A



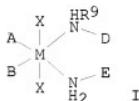
PAGE 2-A



L14 ANSWER 13 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2006:504471 CAPLUS
 DOCUMENT NUMBER: 145:116145
 TITLE: Transition metal complexes as catalysts for asymmetric
 hydrogenation of ketones or their derivatives
 INVENTOR(S): Ding, Kuiling; Jing, Qing
 PATENT ASSIGNEE(S): Shanghai Institute of Organic Chemistry, Chinese
 Academy of Sciences, Peop. Rep. China
 SOURCE: Faming Zhanli Shenqing Gongkai Shuomingshu, 36 pp.
 CODEN: CNXKEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1680412	A	20051012	CN 2005-10023632	20050127

CN 1331874	C 20070815	CN 2007-10095929	20050127
CN 101037451	A 20070919	CN 2005-10023632	A3 20050127
PRIORITY APPLN. INFO.:	MARPAT 145:116145		
OTHER SOURCE(S):			
GI			

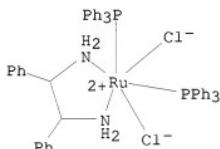


AB The title transition metal complexes with a general formula I were synthesized by reacting transition metal salts with diamine ligands or monoamine ligands and diphosphine ligands or monophosphine ligands at a molar ratio of 1:(1-5):(1-5) at 0-100°C for 0.5-20 h in organic solvents, where A or B is tris(C1-12-alkyl)phosphine, or A and B form a ring containing two phosphorous atoms bonded to M; D or E is substituted phenylethyl, or D and E form a ring; M is Ru, Pd, Cu, or Fe; X is Cl, Br, or I; and R is H, methylsulfonyl, or p-methylbenzenesulfonyl. The metal complexes can be used in catalytically asym. hydrogenation of ketone such as acetophenone, benzophenone, Me cyclopropyl ketone, γ -N,N-dimethylamino- α -phenylacetone, and derivs. thereof.

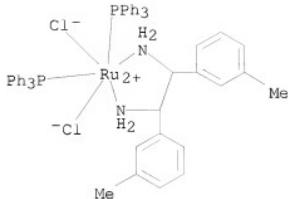
IT 886446-25-9P 894772-54-4P 894772-55-5P
 894772-56-6P 894772-57-7P 894772-61-3P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)

(method of preparation of transition metal complexes used in catalytically asym. hydrogenation of chiral ketones or their derivs.)

RN 886446-25-9 CAPLUS
 CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine- κ N, κ N']bis(triphenylphosphine)-, (OC-6-13)- (9CI) (CA INDEX NAME)

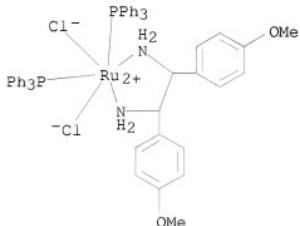


RN 894772-54-4 CAPLUS
 CN Ruthenium, [1,2-bis(3-methylphenyl)-1,2-ethanediamine- κ N, κ N']dichlorobis(triphenylphosphine)- (9CI) (CA INDEX NAME)



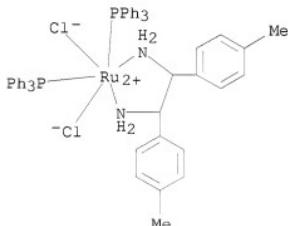
RN 894772-55-5 CAPLUS

CN Ruthenium, [1,2-bis(4-methoxyphenyl)-1,2-ethanediamine-
κN,κN']dichlorobis(triphenylphosphine)- (9CI) (CA INDEX NAME)



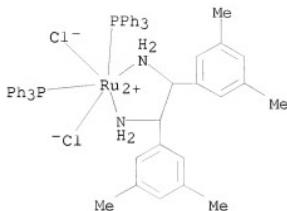
RN 894772-56-6 CAPLUS

CN Ruthenium, [1,2-bis(4-methylphenyl)-1,2-ethanediamine-
κN,κN']dichlorobis(triphenylphosphine)- (9CI) (CA INDEX NAME)

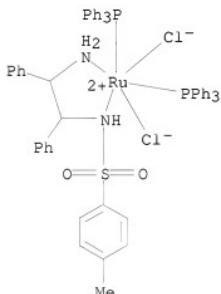


RN 894772-57-7 CAPLUS

CN Ruthenium, [1,2-bis(3,5-dimethylphenyl)-1,2-ethanediamine-
κN,κN']dichlorobis(triphenylphosphine)- (9CI) (CA INDEX NAME)



RN 894772-61-3 CAPLUS

CN Ruthenium, [N-[2-(amino- κ N)-1,2-diphenylethyl]-4-methylbenzenesulfonamide- κ N]dichlorobis(triphenylphosphine)- (CA INDEX NAME)

L14 ANSWER 14 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006131707 CAPLUS

DOCUMENT NUMBER: 144:110144

TITLE: Monodonor phosphonite ligands

INVENTOR(S): Docherty, Gordon Findlay; Woodward, Gary; Wills, Martin; Xu, Yingjian

PATENT ASSIGNEE(S): Rhodia Consumer Specialties Limited, UK

SOURCE: PCT Int. Appl., 45 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

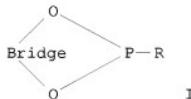
APPLICATION NO.

DATE

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WO 2006003431	A1	20060112	WO 2005-GB2614	20050704
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1763399	A1	20070321	EP 2005-757629	20050704
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1993179	A	20070704	CN 2005-80025554	20050704
US 20080262269	A1	20081023	US 2008-631565	20080421
PRIORITY APPLN. INFO.:			GB 2004-14998	A 20040705
			WO 2005-GB2614	W 20050704

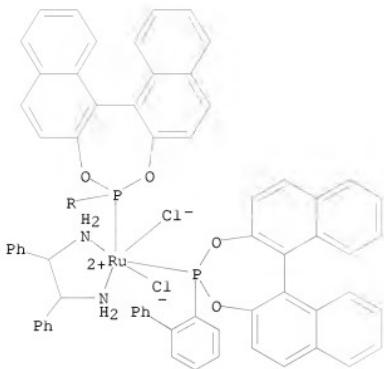
OTHER SOURCE(S):
GI

MARPAT 144:110144

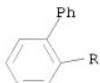


- AB The invention provides the use of a metal complex, which is a complex of one or more metal atoms or ions with one or more ligands, as a catalyst in an organic transformation selected from hydrogenation of carbon-heteroatom double bonds, hydroformylation, dialkylzinc addns. to aldehydes, hydrocarboxylation, allylic substitution, oxidation, epoxidn., dihydroxylation, Diels-Alder cycloaddns., dipolar cycloaddns. and rearrangement reactions, wherein one or more of the ligands is I, wherein the bridge group is an organic functional group, and the R group is a substituted Ph group, wherein the R group has only one substituent at the ortho position, and wherein a carbon atom of the R group bonds the R group to the P atom.
- IT 798560-97-1 798560-98-2
- RL: CAT (Catalyst use); USES (Uses)
(monodonor phosphonite ligands)
- RN 798560-97-1 CAPLUS
- CN Ruthenium, bis{[(11Br)-4-[1,1'-biphenyl]-2-yl]dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphhepin- κ P4}dichloro[(1R,2R)-1,2-diphenyl-1,-ethanediamine- κ N, κ N']-, (OC-6-13)- (9CI) (CA INDEX NAME)

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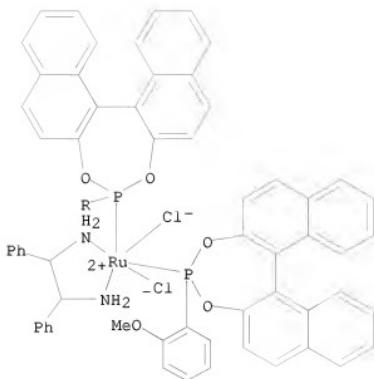
PAGE 2-A



RN 798560-98-2 CAPLUS

CN Ruthenium, dichlororo[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(11bS)-4-(2-methoxyphenyl)dinaphtho[2,1-d:1',2'-
f][1,3,2]dioxa phosphepin-κP4]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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IT 798560-99-3P

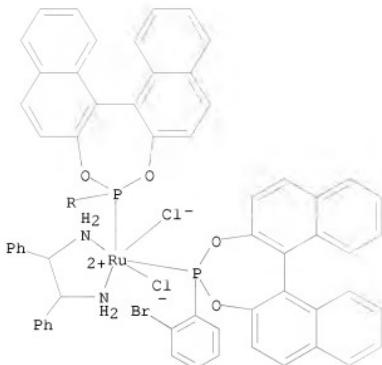
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
USES (Uses)

(monodonor phosphonite ligands)

RN 798560-99-3 CAPLUS

CN Ruthenium, bis[(1bS)-4-(2-bromophenyl)dinaphtho[2,1-d:1',2'-f][2,3-d]phosphepin-κP4]dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN1,κN2]-, (OC-6-13)- (CA INDEX NAME)

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REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 15 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 20051307365 CAPLUS

DOCUMENT NUMBER: 144:44588

TITLE: Bistropylidenediamines and their use

INVENTOR(S): Gruetzmacher, Hansjoerg; Maire, Pascal

PATENT ASSIGNEE(S): Lanxess Deutschland G.m.b.H., Germany

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

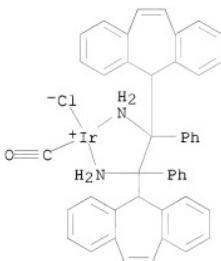
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1604973	A1	20051214	EP 2005-11538	20050527
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,				

BA, HR, IS, YU
DE 102004027772 A1 20060105 DE 2004-102004027772 20040608
IN 2005DE01436 A 20070824 IN 2005-DE1436 20050603
US 20050283014 A1 20051222 US 2005-145839 20050606
JP 2006008683 A 20060112 JP 2005-167426 20050607
CN 1706806 A 20051214 CN 2005-10083743 20050608
PRIORITY APPLN. INFO.: DE 2004-102004027772A 20040608
OTHER SOURCE(S): CASREACT 144:44588; MARPAT 144:44588
AB The preparation and the process for the preparation of bistropylidenediamines are reported. The Ir complexes of the bistropylidenediamines were prepared and used as hydrogenation catalysts.
IT 870992-88-4P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)
(preparation as hydrogenation catalyst)
RN 870992-88-4 CAPLUS
CN Iridium, [(1S,2S)-1,2-bis(5H-dibenzo[a,d]cyclohepten-5-yl)-1,2-diphenyl-1,2-ethanediamine-κN,κN']carbonylchloro-, (SP-4-2)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

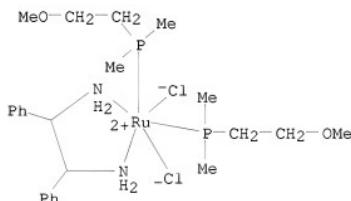
L14 ANSWER 16 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:1028670 CAPLUS
DOCUMENT NUMBER: 144:399788
TITLE: Combinatorial micro electrochemistry. Part 4: Cyclic voltammetric redox screening of homogeneous ruthenium(II) hydrogenation catalysts
AUTHOR(S): Lindner, Ekkehard; Lu, Zhong-Lin; Mayer, Hermann A.; Speiser, Bernd; Tittel, Carsten; Warad, Ismail
CORPORATE SOURCE: Institut fuer Anorganische Chemie, Universitaet Tuebingen, Tuebingen, D-72076, Germany
SOURCE: Electrochemistry Communications (2005), 7(10), 1013-1020
CODEN: ECCMF9; ISSN: 1388-2481
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal

LANGUAGE: English
 AB Organometallic Ru(II) complexes, which act as homogeneous hydrogenation catalysts, are characterized electrochem. with respect to their redox properties by a new screening technique (redox screening). Samples of the complexes are dissolved in an electrolyte and placed in the wells of microtiter plates. Electrode bundles are moved under computer control between these wells, and cyclic voltammograms are automatically recorded. Anal. of the current/potential curves shows a relation between the voltammogram shape or position and the catalytic activity of the complexes. Thus, the technique proves well suited as an electrochem.-based high-throughput method.

IT 620173-91-3
 RL: CAT (Catalyst use); CPS (Chemical process); CST (Combinatorial study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); CMBI (Combinatorial study); PROC (Process); USES (Uses)
 (cyclic voltammetric redox screening of hydrogenation catalysts for acetophenone)

RN 620173-91-3 CAPLUS

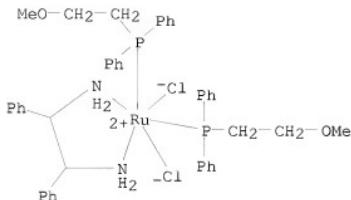
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine- κ N, κ N'-bis[(2-methoxyethyl)dimethylphosphine- κ P]-, (OC-6-13)- (9CI) (CA INDEX NAME)



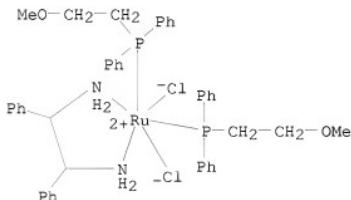
IT 590365-41-6 590384-39-7
 RL: CAT (Catalyst use); CPS (Chemical process); CST (Combinatorial study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); CMBI (Combinatorial study); PROC (Process); USES (Uses)
 (cyclic voltammetric redox screening of hydrogenation catalysts for phenylbutenone)

RN 590365-41-6 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine- κ N, κ N'-bis[(2-methoxyethyl)diphenylphosphine- κ P]-, (OC-6-13)- (9CI) (CA INDEX NAME)



RN 590384-39-7 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN'-bis(2-methoxyethyl)diphenylphosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 17 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:959366 CAPLUS

DOCUMENT NUMBER: 145:62618

TITLE: Asymmetric hydrogenations of ketones catalyzed by Ru-achiral phosphine-enantiopure diamine complexes

AUTHOR(S): Xia, Yu-Qing; Tang, Yuan-You; Liang, Zhi-Ming; Yu, Chang-Bin; Zhou, Xiang-Ge; Li, Rui-Xiang; Li, Xian-Jun

CORPORATE SOURCE: Key Lab of Green Chemistry and Technology, Ministry of Education, Department of Chemistry, Sichuan University, Sichuan, 610064, Peop. Rep. China

SOURCE: Journal of Molecular Catalysis A: Chemical (2005), 240(1-2), 132-138

CODEN: JMCCF2; ISSN: 1381-1169

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 145:62618

AB Five ruthenium complexes, RuCl2(MOTPP)2[(S,S)-DPEN] [MOTPP = tris(4-methoxyphenyl)phosphine], RuCl2(TFTPP)2[(S,S)-DPEN] [TFTPP = tris(4-trifluoromethylphenyl)phosphine], RuCl2(PPh3)2[(S,S)-DPEN], RuCl2(BDPX) [(S,S)-DPEN] [BDPX = 1,2-bis(diphenylphosphinomethyl)benzene],

RuCl₂(BISBI)[(S,S)-DPEN][BISBI = 2,2'-bis((diphenylphosphino)methyl)-1,1'-biphenyl] were synthesized and used for the hydrogenation of aromatic ketones. The complexes showed high catalytic activities, especially that the catalytic activity of the complex containing the diposphine with large bite angle and the complex containing triarylphosphine with electron-donating group were higher than the other three complexes. The enantioselectivities of products were almost not influenced by the electron factors of phosphine.

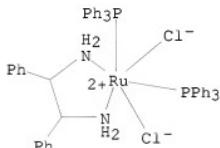
IT 320338-32-7P 320338-42-9P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation and catalyst use of DPEN-rutheniums via ligand exchange of ruthenium phosphines with DPEN)

RN 320338-32-7 CAPLUS

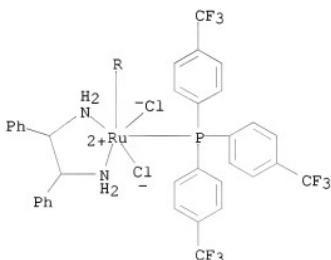
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN,κN'bis(triphenylphosphine)-, (OC-6-13)- (9CI) (CA INDEX NAME)



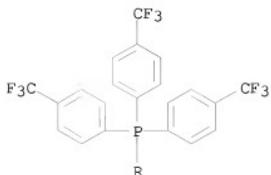
RN 320338-42-9 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN,κN'bis[tris[4-(trifluoromethyl)phenyl]phosphine-κP]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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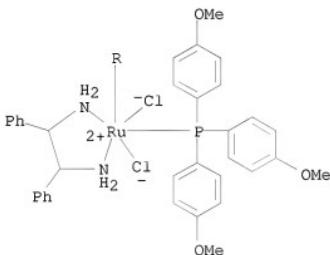
IT 890898-89-2P

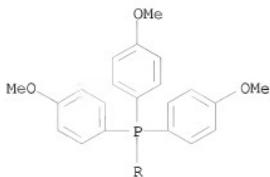
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 PREP (Preparation); USES (Uses)
 (preparation, catalyst use and crystal structure of [RuCl₂(BISBI)(S,S)-DPEN]
 via ligand exchange of ruthenium dichloride phosphine with
 diphenylethyldiamine)

RN 890898-89-2 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis[tris(4-methoxyphenyl)phosphine-κP] -,
 (OC-6-13)- (9CI) (CA INDEX NAME)

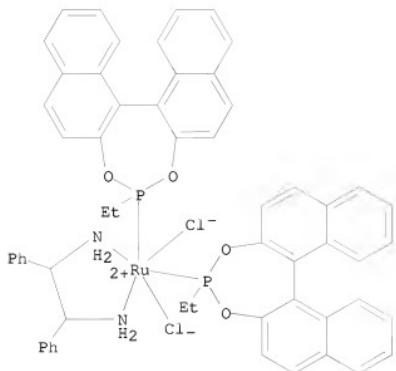
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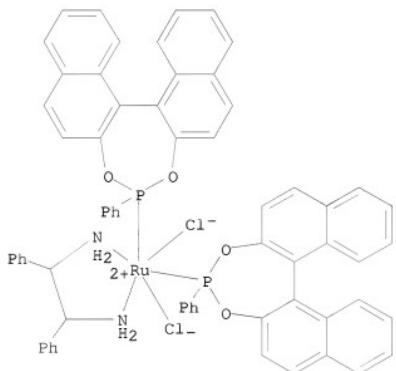
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 18 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:921277 CAPLUS
 DOCUMENT NUMBER: 143:405648
 TITLE: Ruthenium(II) Complexes of Monodonor Ligands:
 Efficient Reagents for Asymmetric Ketone Hydrogenation
 AUTHOR(S): Xu, Yingjian; Clarkson, Guy C.; Docherty, Gordon;
 North, Carl L.; Woodward, Gary; Wills, Martin
 CORPORATE SOURCE: Department of Chemistry, University of Warwick,
 Coventry, CV4 7AL, UK
 SOURCE: Journal of Organic Chemistry (2005), 70(20), 8079-8087
 CODEN: JOCEAH; ISSN: 0022-3263
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 143:405648
 AB A series of BINOL-derived ligands have been prepared and incorporated into
 ruthenium(II) complexes containing a diamine ligand. The complexes have
 proven to be excellent catalysts for the asym. hydrogenation of ketones,
 giving reduction products with enantiomeric excesses of up to 99%.
 IT 798560-94-8P 798560-95-9P 798560-96-0P
 798560-98-2P 798560-99-3P 798561-00-9P
 799291-87-5P 867349-28-8P 867349-42-6P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (preparation of ruthenium(II) complexes of monodonor ligands as efficient
 catalysts for asym. ketone hydrogenation)
 RN 798560-94-8 CAPLUS
 CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis[(11bS)-4-ethylidinaphtho[2,1-d:1',2'-
 f][1,3,2]dioxaphosphhepin-κP4]-, (OC-6-13)- (CA INDEX NAME)



RN 798560-95-9 CAPLUS

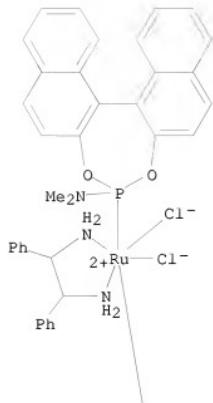
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(11bS)-4-phenyldinaphtho[2,1-d:1',2'-
f][1,3,2]dioxaphosphhepin-4-amine-κP4]-, (OC-6-13)- (9CI) (CA INDEX NAME)



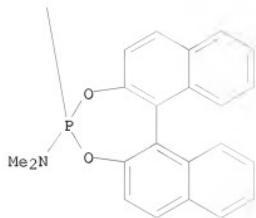
RN 798560-96-0 CAPLUS

CN Ruthenium, dichlorobis[(11bS)-N,N-dimethyldinaphtho[2,1-d:1',2'-
f][1,3,2]dioxaphosphhepin-4-amine-κP4][(1S,2S)-1,2-diphenyl-1,2-
ethanediamine-κN,κN']-, (OC-6-13)- (9CI) (CA INDEX NAME)

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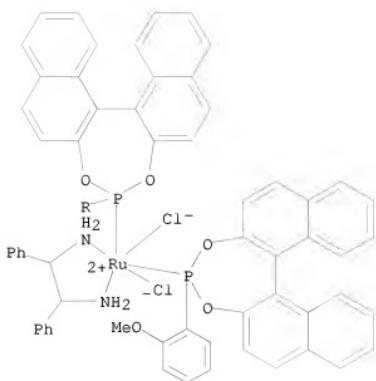


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RN 798560-98-2 CAPLUS
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κ N, κ N']bis[(1lbS)-4-(2-methoxyphenyl)dinaphtho[2,1-d:1',2'-
f][1,3,2]dioxaphosphhepin- κ P4]-, (OC-6-13)- (CA INDEX NAME)

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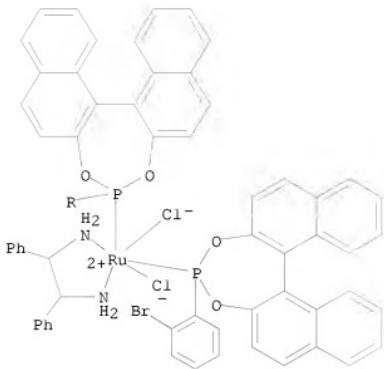
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RN 798560-99-3 CAPLUS

CN Ruthenium, bis[(11bS)-4-(2-bromophenyl)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphhepin-κP4]dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN1,κN2]-, (OC-6-13)- (CA INDEX NAME)

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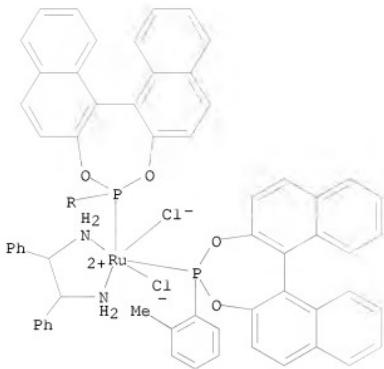
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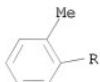
RN 798561-00-9 CAPLUS

CN Ruthenium, dichlororo[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(11bS)-4-(2-methylphenyl)dinaphtho[2,1-d:1',2'-
f][1,3,2]dioxa phosphepin-κP4]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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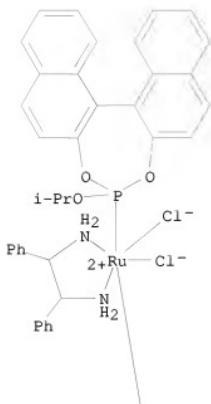
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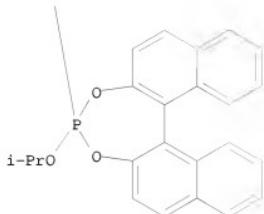
RN 799291-87-5 CAPLUS

CN Ruthenium, dichlororo[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(11bS)-4-(1-methylethoxy)dinaphtho[2,1-d:1',2'-
f][1,3,2]dioxa phosphhepin-κP4]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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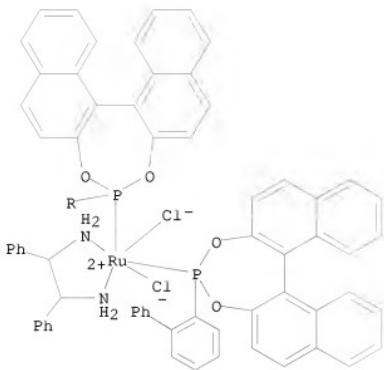
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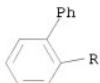
RN 867349-28-8 CAPLUS

CN Ruthenium, bis[(11bS)-4-(1,1'-biphenyl)-2-yldinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphhepin- κ P4]dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine- κ N, κ N']-, (OC-6-13)-(9CI) (CA INDEX NAME)

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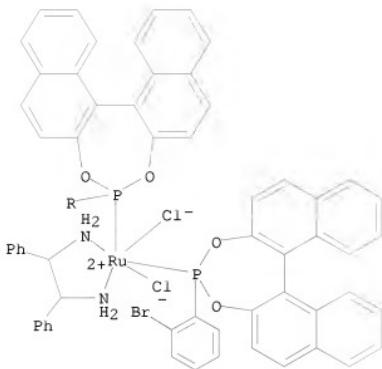
PAGE 2-A



RN 867349-42-6 CAPLUS

CN Ruthenium, bis[(1bR)-4-(2-bromophenyl)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaaphosphhepin-κP4]dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN,κN']-, (OC-6-13)- (9CI) (CA INDEX NAME)

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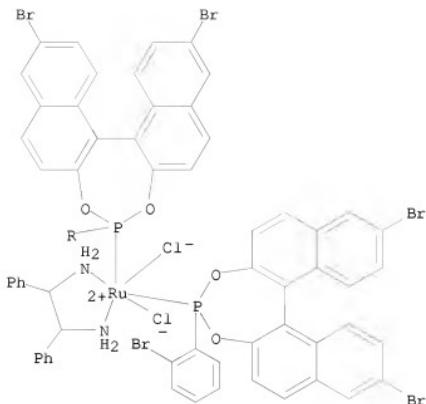
IT 867288-38-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of ruthenium(II) complexes of monodonor ligands as efficient
 catalysts for asym. ketone hydrogenation)

RN 867288-38-8 CAPLUS

CN Ruthenium, bis[(1bR)-9,14-dibromo-4-(2-bromophenyl)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphhepin-κP4]dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-κN,κN']-, (OC-6-13)- (9CI) (CA INDEX NAME)

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REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 19 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:714960 CAPLUS
 DOCUMENT NUMBER: 144:467855
 TITLE: Bulky achiral triarylphosphines mimic BINAP in
 Ru(II)-catalyzed asymmetric hydrogenation of ketones
 Jing, Qing; Zhang, Xue; Sun, Jie; Ding, Kuiling
 State Key Laboratory of Organometallic Chemistry,
 Shanghai Institute of Organic Chemistry, Chinese
 Academy of Sciences, Shanghai, 200032, Peop. Rep.
 China
 AUTHOR(S):
 CORPORATE SOURCE:
 SOURCE: Advanced Synthesis & Catalysis (2005), 347(9),
 1193-1197
 CODEN: ASCAF7; ISSN: 1615-4150
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English

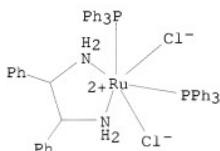
OTHER SOURCE(S): CASREACT 144:467855
 AB Catalysis of the enantioselective hydrogenation of ketones with Ru(II) complexes composed of cheap achiral monodentate phosphine ligands in combination with an enantiopure 1,2-diamine, affording a variety of optically active secondary alcs. with high efficiency and enantioselectivity, is reported. The steric impact of achiral monophosphine ligands in Ru complexes was found to be a critical factor for the high enantioselectivity of the reaction. This finding throws some light on a long-standing challenge of the high cost of chiral bisphosphine ligands, associated with an industrial application of the asym. hydrogenation of ketones.

IT 886446-25-9 886446-34-0

RL: CAT (Catalyst use); PRP (Properties); USES (Uses)
 (crystal structure; preparation of chiral secondary alcs. via asym.
 hydrogenation of ketones catalyzed by Ru(II) complexes with bulky
 achiral triarylphosphine ligands and a chiral diamine)

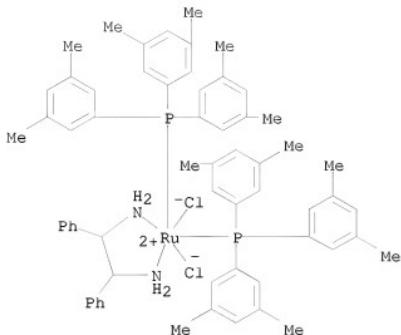
RN 886446-25-9 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis(triphenylphosphine)-, (OC-6-13)- (9CI) (CA INDEX
 NAME)



RN 886446-34-0 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis[tris(3,5-dimethylphenyl)phosphine]-, (OC-6-13)-
 (9CI) (CA INDEX NAME)



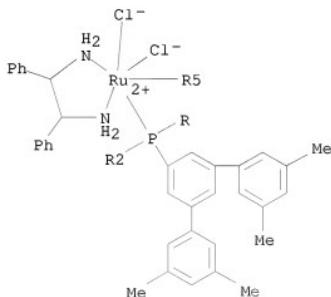
IT 886446-37-3

RL: CAT (Catalyst use); PRP (Properties); USES (Uses)
 (mol. structure calculated by mol. mechanics; preparation of chiral
 secondary
 alcs. via asym. hydrogenation of ketones catalyzed by Ru(II) complexes
 with bulky achiral triarylphosphine ligands and a chiral diamine)
 CAPLUS

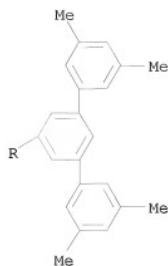
RN 886446-37-3

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
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 5'-yl)phosphine]- (9CI) (CA INDEX NAME)

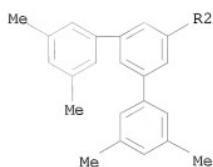
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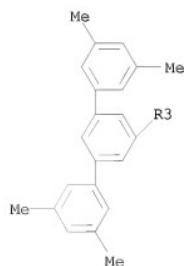
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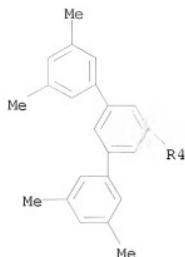
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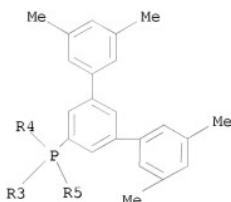
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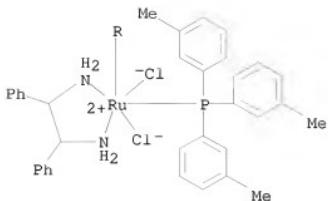
IT 886446-26-0 886446-36-2

RL: CAT (Catalyst use); USES (Uses)
 (preparation of chiral secondary alcs. via asym. hydrogenation of ketones
 catalyzed by Ru(II) complexes with bulky achiral triarylphosphine
 ligands and a chiral diamine)

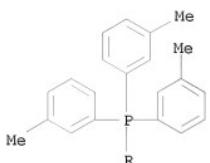
RN 886446-26-0 CAPLUS

CN Ruthenium, dichloro[(1*R*,2*R*)-1,2-diphenyl-1,2-ethanediamine-
 κ*N*,κ*N'*]bis[tris(3-methylphenyl)phosphine]-, (OC-6-13)- (9CI)
 (CA INDEX NAME)

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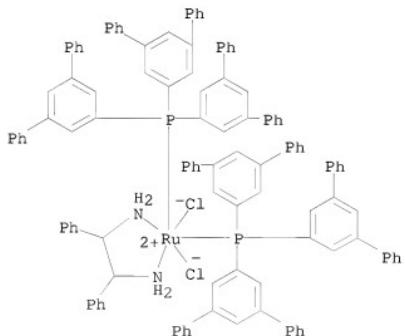


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RN 886446-36-2 CAPLUS

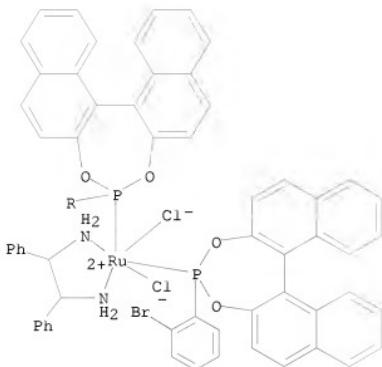
CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-κN,κN'bis[tris([1,1':3',1'''-terphenyl]-5'-yl)phosphine]-, (OC-6-13)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 20 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:811014 CAPLUS
DOCUMENT NUMBER: 142:6263
TITLE: Asymmetric Hydrogenation of Ketones Using a Ruthenium(II) Catalyst Containing BINOL-Derived Monodonor Phosphorus-Donor Ligands
AUTHOR(S): Xu, Yingjian; Alcock, Nat W.; Clarkson, Guy J.; Docherty, Gordon; Woodward, Gary; Wills, Martin
CORPORATE SOURCE: Department of Chemistry, University of Warwick, Coventry, CV4 7AL, UK
SOURCE: Organic Letters (2004), 6(22), 4105-4107
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 142:6263
AB A series of ruthenium(II) complexes containing BINOL-based monodonor phosphorus ligands have been prepared and applied to the asym. catalysis of the hydrogenation of aryl/alkyl ketones. The best ligands for this application are those which contain an aromatic groups with either a methoxide or bromide on the ortho position. Using these ligands, alcs. with ee's of up to 99% are formed.
IT 798560-99-3P
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(crystal structure; stereoselective preparation of arylethanols via chiral ruthenium complexes catalyzed asym. hydrogenation of aryl/alkyl ketones)
RN 798560-99-3 CAPLUS
CN Ruthenium, bis[(1bS)-4-(2-bromophenyl)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-κP]dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN1,κN2]-, (OC-6-13)- (CA INDEX NAME)

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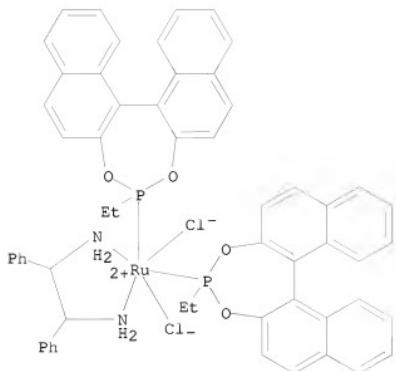


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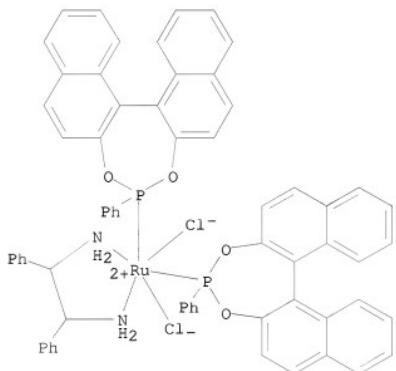
IT 798560-94-8P 798560-95-9P 798560-97-1P
 798561-00-9P 799291-87-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of chiral arylphosphorus ligands containing BINOL for
 ruthenium(II)
 complexes as potential asym. hydrogenation catalysts)
 RN 798560-94-8 CAPLUS
 CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis[(11bS)-4-ethylidinaphtho[2,1-d:1',2'-
 f][1,3,2]dioxaphosphepin-κP4]-, (OC-6-13)- (9CI) (CA INDEX NAME)



RN 798560-95-9 CAPLUS

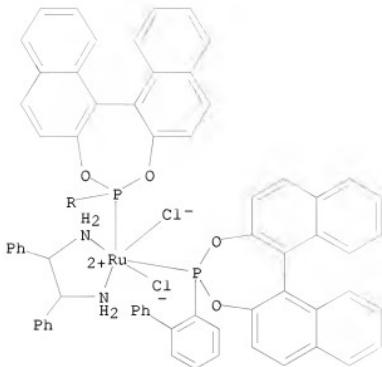
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 $\kappa\text{N},\kappa\text{N}'$ bis[(11bS)-4-phenyldinaphtho[2,1-d:1',2'-
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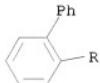
RN 798560-97-1 CAPLUS

CN Ruthenium, bis[(11bR)-4-[1,1'-biphenyl]-2-yldinaphtho[2,1-d:1',2'-
f][1,3,2]dioxaphosphepin- $\kappa\text{P}4]$ dichloro[(1R,2R)-1,2-diphenyl-1,2-
ethanediamine- $\kappa\text{N},\kappa\text{N}'$]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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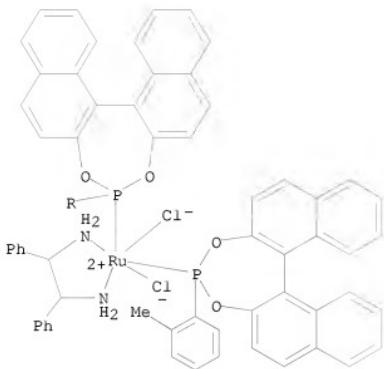
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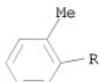
RN 798561-00-9 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine- $\kappa\text{N},\kappa\text{N}'$]bis[(11bS)-4-(2-methylphenyl)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphhepin- $\kappa\text{P}4$]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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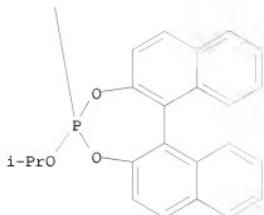
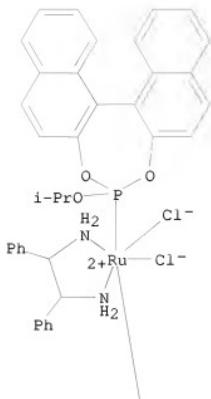


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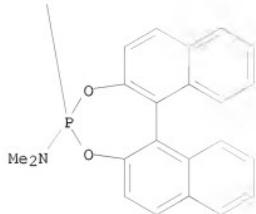
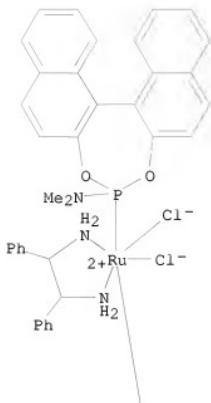


RN 799291-87-5 CAPLUS

CN Ruthenium, dichlororo[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(11bS)-4-(1-methylethoxy)dinaphtho[2,1-d:1',2'-
f][1,3,2]dioxa phosphhepin-κP4-], (OC-6-13)- (9CI) (CA INDEX NAME)

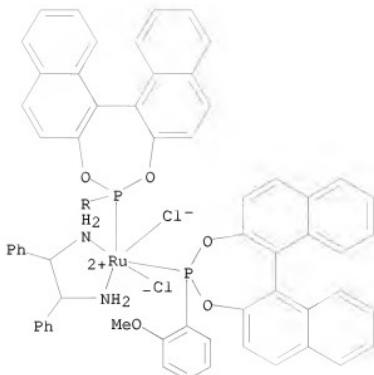


IT 798560-96-0P 798560-98-2P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (stereoselective preparation of arylethanols via chiral ruthenium complexes
 catalyzed asym. hydrogenation of aryl/alkyl ketones)
 RN 798560-96-0 CAPLUS
 CN Ruthenium, dichlorobis[(11bS)-N,N-dimethylidinaphtho[2,1-d:1',2'-
 f][3,2]dioxaphosphorin-4-amine-kP4][(1S,2S)-1,2-diphenyl-1,2-
 ethanediamine- κ N, κ N']-, (OC(=O)C₆-13)- (9CI) (CA INDEX NAME)



RN 798560-98-2 CAPLUS
 CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis[[1(bzS)-4-(2-methoxyphenyl)dinaphtho[2,1-d:1',2'-
 f][1,3,2]dioxaphosphepin-κ4]-, (OC-6-13)- (9CI) (CA INDEX NAME)

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REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 21 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:278076 CAPLUS
 DOCUMENT NUMBER: 141:46356
 TITLE: Supported organometallic complexes part 39: cationic diamine(ether-phosphine)ruthenium(II) complexes as precursors for the hydrogenation of trans-4-phenyl-3-butene-2-one
 AUTHOR(S): Warad, Ismail; Eichele, Klaus; Mayer, Hermann A.; Lindner, Ekkehard
 CORPORATE SOURCE: Institut fur Anorganische Chemie der Universitat Tbingen, Tbingen, D-72076, Germany
 SOURCE: Inorganica Chimica Acta (2004), 357(6), 1847-1853
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:46356

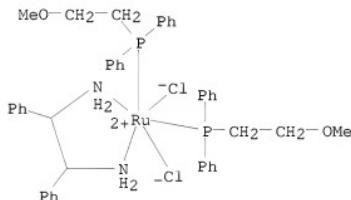
AB Treatment of RuCl₂(η₁-Ph₂PCH₂CH₂OCH₃)₂L (1; L = 2,2-dimethylethylenediamine, trans-1,2-cyclohexanediamine, o-phenylenediamine, (R,R)- and (S,S)-1,2-diphenylethylenediamine, 2,2-dimethyl-1,3-propanediamine, 2,2'-bipyridine) with one equivalent of AgX (X = OTf, BF₄⁻) in CH₂Cl₂ gave the monocationic Ru(II) complexes [RuCl(η₁-Ph₂PCH₂CH₂OCH₃)(η₂-Ph₂PCH₂CH₂OCH₃)L]X (2). These complexes were characterized by NMR, and mass spectroscopy as well as by elemental analyses, 2 (L = 2,2-dimethylethylenediamine) addnl. by an x-ray structural anal. Complex 2 (L = 2,2-dimethylethylenediamine) crystallizes in the monoclinic space group C2/c with Z = 8. The monocationic and neutral complexes were applied as catalysts in the selective hydrogenation of trans-4-phenyl-3-butene-2-one. With the exception of (L = o-phenylenediamine, 2,2'-bipyridine) and the resp. 2 complexes all catalysts showed high activities and selectivities toward the hydrogenation of the carbonyl group under mild conditions. However, the activity of the cationic catalysts is only half of that of their neutral congeners.

IT 590365-41-6 590384-39-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of ruthenium methoxyethylphosphine diamine complexes with chelated methoxyethylphosphine)

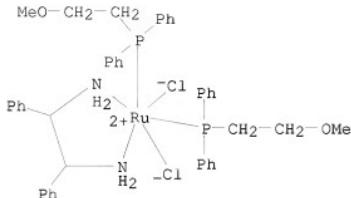
RN 590365-41-6 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-κN,κN']bis[(2-methoxyethyl)diphenylphosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)



RN 590384-39-7 CAPLUS

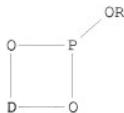
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-κN,κN']bis[(2-methoxyethyl)diphenylphosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

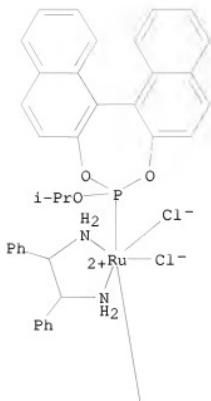
L14 ANSWER 22 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:181806 CAPLUS
 DOCUMENT NUMBER: 140:217810
 TITLE: Process for the preparation of phosphites and complexes with transition metals and their use as catalyst
 INVENTOR(S): Scholz, Ulrich; Vogl, Erasmus; Gerlach, Arne; Hassfeld, Jorma; Meseguer, Benjamin
 PATENT ASSIGNEE(S): Bayer Chemicals AG, Germany
 SOURCE: Eur. Pat. Appl., 24 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1394168	A1	20040303	EP 2003-18513	20030816
EP 1394168	B1	20080521		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
DE 10240803	A1	20040311	DE 2002-10240803	20020830
IN 2003MU00805	A	20050401	IN 2003-MU805	20030814
AT 396196	T	20080615	AT 2003-18513	20030816
US 20040116726	A1	20040617	US 2003-650012	20030826
US 6992201	B2	20060131		
JP 2004091488	A	20040325	JP 2003-303492	20030827
CN 1495189	A	20040512	CN 2003-132748	20030829
PRIORITY APPLN. INFO.:			DE 2002-10240803	A 20020830
OTHER SOURCE(S):			CASREACT 140:217810; MARPAT 140:217810	
GI				

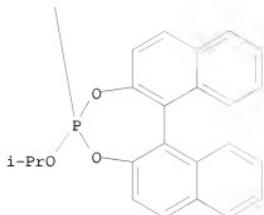


- AB The preparation of phosphites, I (D = (un)substituted 1,1'-biphenyl-2,2'-diyl, 1,1'-binaphthyl-2,2'-diyl, etc.; R = C1-12 alkyl, C2-12 alkenyl, C1-12 haloalkyl, C5-15 arylalkyl, C4-14 aryl, etc.), and their transition metal complexes, useful as catalysts, is described. Thus, reaction of PC13 with 2-propanol gave isopropylidichloro phosphite which on treatment with (R)-1,1'-binaphthyl-2,2'-diol in the presence of Et3N in THF gave 79% {(R)-1,1'-binaphthyl-2,2'-diyl}-isopropylphosphite. Reaction of Rh(COD)2OTf with {(R)-1,1'-binaphthyl-2,2'-diyl}-isopropylphosphite in CH2Cl2 gave the rhodium complex which was useful as catalyst.
- IT 663940-90-7P 663940-91-8P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)
 (preparation of phosphites and complexes with transition metals and their
 use as catalyst)
- RN 663940-90-7 CAPLUS
- CN Ruthenium, dichloro[1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[4-(1-methylethoxy)dinaphtho[2,1-d:1',2'-
f][1,3,2]dioxa phosphhepin-κP4]- (9CI) (CA INDEX NAME)

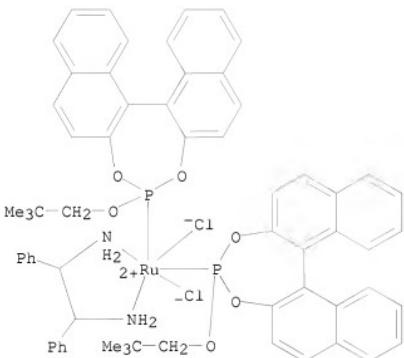
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RN 663940-91-8 CAPLUS
CN Ruthenium, dichlorobis[4-(2,2-dimethylpropoxy)dinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin- $\kappa\text{P}4$](1,2-diphenyl-1,2-ethanediamine- $\kappa\text{N},\kappa\text{N}'$)- (9CI) (CA INDEX NAME)



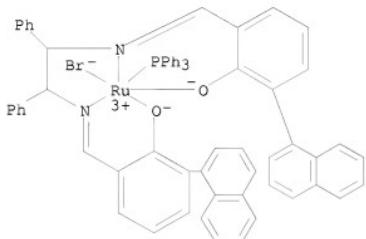
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 23 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:788142 CAPLUS
 DOCUMENT NUMBER: 140:209395
 TITLE: Chiral schiff base ruthenium (III) complexes:
 Synthesis, characterisation, catalytic and
 antibacterial studies
 AUTHOR(S): Thangadurai, T. Daniel; Ihm, Son-Ki
 CORPORATE SOURCE: Department of Chemical and Biomolecular Engineering,
 Korea Advanced Institute of Science and Technology,
 Daejeon, 305-701, S. Korea
 SOURCE: Journal of Industrial and Engineering Chemistry
 (Seoul, Republic of Korea) (2003), 9(5), 563-568
 CODEN: JIECFI; ISSN: 1226-086X
 PUBLISHER: Korean Society of Industrial and Engineering Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 140:209395
 AB Chiral Schiff base Ru(III) complexes [RuX(LL')(EPh₃)] (X = Cl or Br; LL' = chiral Schiff base; E = P or As) were synthesized by the reactions of [RuX₃(EPh₃)₃] or [RuBr₃(PPh₃)₂(MeOH)] with appropriate Schiff bases having the donor groups (O,N) viz., bis[3-(1'-naphthyl)salicylidene]cyclohexanediamine (L1) or bis[3-(1'-naphthyl)salicylidene]propylenediamine (L2) or bis[3-(1'-naphthyl)salicylidene]phenylenediamine (L3) in 1:1 molar ratio. The characterization of the complex was done by elemental analyses and spectral (IR, UV-visible and EPR), electrochem. and magnetic moment data. An octahedral structure was tentatively proposed for all the new complexes. The catalytic and antibacterial activities also were carried out for these new complexes.
 IT 663153-76-2P
 RL: BSU (Biological study, unclassified); CPS (Chemical process); PEP

(Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(preparation and cyclic voltammetry and antibacterial activity and oxidation catalyst for chlorobenzaldehyde)

RN 663153-76-2 CAPLUS

CN Ruthenium, bromo[2,2'-(1(S,2S)-1,2-diphenyl-1,2-ethanediyl)bis[(nitrilo- κ N)methylidyne]]bis[5-(1-naphthalenyl)phenolato- κ O](2-) (2-)](triphenylphosphine)-, (OC-6-24)- (9CI) (CA INDEX NAME)

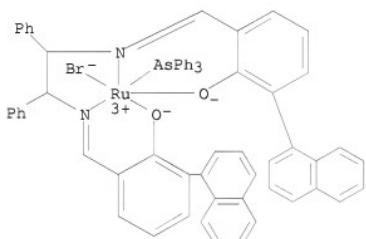


IT 663153-75-1P

RL: BSU (Biological study, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(preparation and cyclic voltammetry and antibacterial activity of)

RN 663153-75-1 CAPLUS

CN Ruthenium, bromo[1,1'-(1(S,2S)-1,2-diphenyl-1,2-ethanediyl)bis[(nitrilo- κ N)methylidyne]]bis[5-(1-naphthalenyl)phenolato- κ O](2-) (2-)](triphenylarsine)-, (OC-6-24)- (9CI) (CA INDEX NAME)



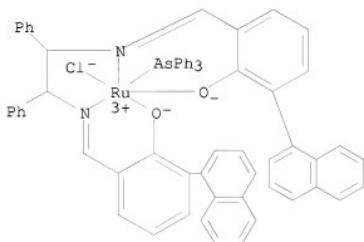
IT 663153-74-0P

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering

or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
 (preparation and cyclic voltammetry and oxidation catalyst for
 chlorobenzaldehyde)

RN 663153-74-0 CAPLUS

CN Ruthenium, chloro[1,1'-([(1S,2S)-1,2-diphenyl-1,2-ethanediyl]bis[(nitrilo-
 κN)methylidynel]bis[5-(1-naphthalenyl)phenolato-κO]](2-
)](triphenylarsine)-, (OC-6-24)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 24 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:537742 CAPLUS

DOCUMENT NUMBER: 139:373625

TITLE: Bis(methoxyethyl)dimethylphosphine)ruthenium(II)
 complexes as transfer hydrogenation catalysts

AUTHOR(S): Lu, Zhong-Lin; Eichele, Klaus; Warad, Ismail; Mayer, Hermann A.; Lindner, Ekkehard; Jiang, Zheng-jing; Schurig, Volker

CORPORATE SOURCE: Inst. Anorganische Chemie, Tuebingen, Germany
 SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie

(2003), 629 (7-8), 1305

CODEN: ZAACAB; ISSN: 0044-2313

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:373625

AB Ten diamineruthenium(II) complexes containing the hemilabile (2-methoxyethyl)dimethylphosphine ligand, [C12Ru(L)(η1-Me2PCH2CH2OMe)2], were synthesized from the starting materials Me2PCH2CH2OMe, [Ru(COD)Cl2]n, and the resp. diamines L. The structure of [C12Ru(1,2-diaminocyclohexane)(η1-Me2PCH2CH2OMe)2] reveals that two chlorides are in trans position while in [C12Ru(2,2'-bipyridine)(η1-Me2PCH2CH2OMe)2] the two chlorides favor a cis configuration. Most of the complexes are highly catalytically active in the hydrogen transfer reduction of acetophenone. The replacement of Ph groups for Me functions in the ether-phosphine ruthenium(II) complexes resulted in a switch of the hydrogenation mechanism from direct hydrogenation to transfer hydrogenation. The reason is attributed to the

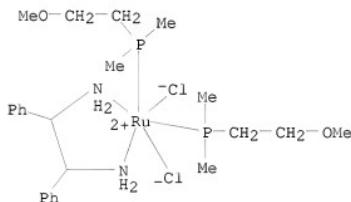
better donor ability of Me groups compared to Ph substituents. Thus, the metal center becomes more electron-rich and inhibits the binding of dihydrogen to the ruthenium(II) complex fragment.

IT 528522-16-9

RL: CAT (Catalyst use); USES (Uses)
(catalytic activity in transfer hydrogenation of acetophenone)

RN 528522-16-9 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(2-methoxyethyl)dimethylphosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)

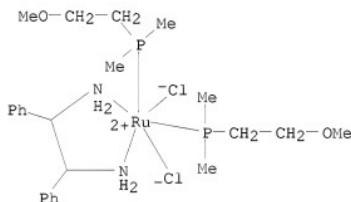


IT 620173-91-3P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)
(preparation and catalytic activity in transfer hydrogenation of
acetophenone)

RN 620173-91-3 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(2-methoxyethyl)dimethylphosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 25 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:483146 CAPLUS

DOCUMENT NUMBER: 139:373586

TITLE: Supported organometallic complexes Part 34: synthesis
and structures of an array of

diamine(ether-phosphine)ruthenium(II) complexes and their application in the catalytic hydrogenation of trans-4-phenyl-3-butene-2-one

AUTHOR(S): Lindner, Eckehard; Warad, Ismail; Eichele, Klaus; Mayer, Hermann A.

CORPORATE SOURCE: Institut fuer Anorganische Chemie der Universitaet Tuebingen, Tuebingen, D-72076, Germany

SOURCE: Inorganica Chimica Acta (2003), 350, 49-56

CODEN: ICHAA3; ISSN: 0020-1693

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:373586

AB The novel diamine-bis(ether-phosphine)ruthenium(II) complexes C12Ru(n1-Ph2PCH2CH2OCH3)2(diamine)2 (1) were obtained by reaction of equimolar amounts of C12Ru(Ph2PCH2CH2OCH3)2 (2) with the 11 diamines in good yields. X-ray structural studies of 1 (diamine = trans cyclohexanediamine, 2,2-dimethyl-1,3-propanediamine) show monoclinic unit cells with the space group P21/c. The octahedrally coordinated Ru atoms have each two trans-chlorides and cis-phosphines which is in agreement with NMR studies in solution. With the exception of 1 (diamine = 4-methyl-1,2-benzenediamine) the Ru complexes are highly catalytically active in the hydrogenation of the α,β -unsatd. ketone trans-4-phenyl-3-butene-2-one. In most cases the conversions and selectivities toward the formation of the unsatd. alc. trans-4-phenyl-3-butene-2-ol were 100% with high turnover frequencies under mild conditions.

IT 590365-41-6P 590384-39-7P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(preparation of ruthenium ether phosphine diamine complexes as hydrogenation catalysts for trans-4-phenyl-3-butene-2-one)

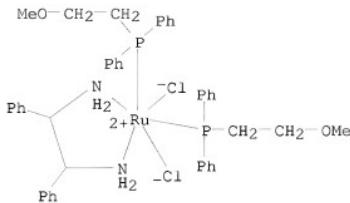
RN 590365-41-6 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine- κ N, κ N']bis[(2-methoxyethyl)diphenylphosphine- κ P]-, (OC-6-13)- (9CI) (CA INDEX NAME)

MeO—CH₂—CH₂
Ph
P
|
Ph
|
N
H₂
|
Ph
|
N
H₂
|
2+Ru
|
—Cl
|
Ph
|
P—CH₂—CH₂—OMe

RN 590384-39-7 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine- κ N, κ N']bis[(2-methoxyethyl)diphenylphosphine- κ P]-, (OC-6-13)- (9CI) (CA INDEX NAME)



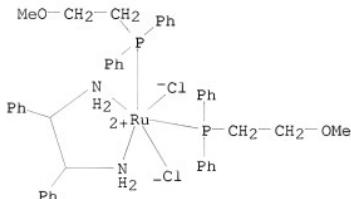
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 26 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:273130 CAPLUS
 DOCUMENT NUMBER: 139:214151
 TITLE: Asymmetric hydrogenation of an α,β -unsaturated ketone by diamine(ether-phosphine)ruthenium(II) complexes and lipase-catalyzed kinetic resolution: a consecutive approach
 AUTHOR(S): Lindner, Ekkehard; Ghanem, Ashraf; Warad, Ismail; Eichele, Klaus; Mayer, Hermann A.; Schurig, Volker
 CORPORATE SOURCE: Institute of Inorganic Chemistry, University of Tubingen, Tubingen, 72076, Germany
 SOURCE: Tetrahedron: Asymmetry (2003), 14(8), 1045-1053
 CODEN: TASYE3; ISSN: 0957-4166
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 139:214151
 AB The RuCl₂(η₁-Ph₂PCH₂CH₂OCH₃)₂(diamine) complexes have been prepared in high yields from the reaction of equimolar amts. of RuCl₂(η₂-Ph₂PCH₂CH₂OCH₃)₂ with various kinds of chelating diamines to form five-membered chelates with ruthenium. These novel ruthenium(II) complexes have been used as catalysts in the asym. hydrogenation of the prochiral ketone trans-4-phenyl-3-but en-2-one (I), using 2-propanol and different types of cocatalysts. Whereas complexes with achiral diamines afforded the racemic alcs., complexes with chiral diamines (R,R or S,S) allowed the formation of the corresponding enantiomerically enriched secondary alc. (S or R) with ee values of 45%. In order to obtain the secondary alc. with ee of >99%, the kinetic resolution of enantiomerically enriched I was performed in a consecutive approach using either the lipase-catalyzed enantioselective transesterification of the alc. with isopropenyl acetate as the acyl donor in toluene or the enantioselective hydrolysis of the corresponding acetate in buffer. The determination of the enantiomeric excess (ee) of the resulting enantiomerically enriched secondary alcs. was performed by gas chromatog. using heptakis(2,3-di-O-methyl-6-O-tert-butylidimethylsilyl)- β -cyclodextrin as the chiral stationary phase.
 IT 590384-39-7P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (asym. hydrogenation of an α,β -unsatd. ketone by

diamine(ether-phosphine)ruthenium(II) complexes and lipase-catalyzed kinetic resolution)

RN 590384-39-7 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(2-methoxyethyl)diphenylphosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)

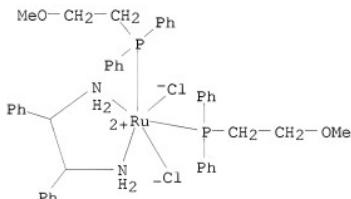


IT 590365-41-6P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);
PREP (Preparation); USES (Uses)
(crystal structure; asym. hydrogenation of an α,β-unsatd.
ketone by diamine(ether-phosphine)ruthenium(II) complexes and
lipase-catalyzed kinetic resolution)

RN 590365-41-6 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(2-methoxyethyl)diphenylphosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 27 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:95859 CAPLUS

DOCUMENT NUMBER: 138:394848

TITLE: Supported organometallic complexes. Part 37: synthesis
and structures of
diamine-
bis(methoxyethyldimethylphosphine)ruthenium(II)
complexes

AUTHOR(S): Lu, Zhong-Lin; Eichele, Klaus; Lindner, Ekkehard;
Mayer, Hermann A.

CORPORATE SOURCE: Institut fuer Anorganische Chemie, Universitaet
Tuebingen, Tuebingen, 72076, Germany

SOURCE: Inorganic Chemistry Communications (2003), 6(4),
365-369

PUBLISHER: CODEN: ICCOPP; ISSN: 1387-7003
Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

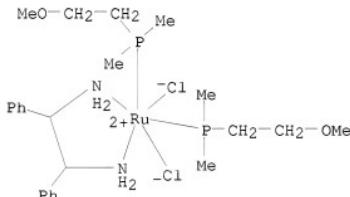
OTHER SOURCE(S): CASREACT 138:394848

AB The first two examples of diamineruthenium(II) complexes containing the
hemilabile (methoxyethyl)dimethylphosphine ligand,
C12Ru(en)(η₁-Me₂CH₂CH₂OMe)₂ (2a) and
C12Ru[(R,R)-dpen](η₁-Me₂CH₂CH₂OMe)₂ (2b) (en = 1,2-diaminoethane,
(R,R)-dpen = 1R,2R-1,2-diamino-1,2-diphenylethane) were synthesized and
structurally characterized.

IT 528522-16-9P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure)

RN 528522-16-9 CAPLUS

CN Ruthenium, dichloro[(1R,2R)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[(2-methoxyethyl)dimethylphosphine-κP]-,
(OC-6-13)-(9CI) (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 28 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:868270 CAPLUS
DOCUMENT NUMBER: 138:303950

TITLE: (Salen)ruthenium-catalyzed desymmetrization of
meso-diols: catalytic aerobic asymmetric oxidation
under photo-irradiation

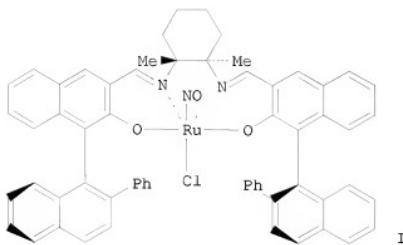
AUTHOR(S): Shimizu, Hideki; Nakata, Kenya; Katsuki, Tsutomu
CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Graduate
School, Kyushu University 33, CREST, Japan Science and
Technology (JST), Fukuoka, 812-8581, Japan

SOURCE: Chemistry Letters (2002), (11), 1080-1081
CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English

OTHER SOURCE(S):
GI

CASREACT 138:303950



AB Catalytic aerobic oxidation of meso-diols using (nitrosyl)-Ru(salen) I as the catalyst under photo-irradiation proceeded with moderate enantioselectivity (up to 67% ee) to give the corresponding lactols.

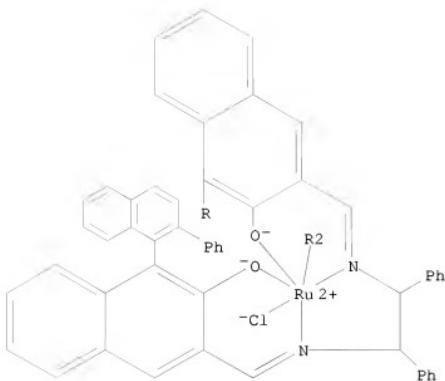
IT 313401-38-6

RL: CAT (Catalyst use); USES (Uses)
(desymmetrization of meso-diols by (salen)ruthenium-catalyzed aerobic asym. oxidation under photo-irradiation)

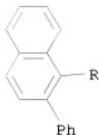
RN 313401-38-6 CAPLUS

CN Ruthenium, chloro{[(1R,1''R)-3,3'''-{[(1R,2R)-1,2-diphenyl-1,2-ethanediyl]bis[(nitrilo-κN)methylidyne]}bis[2'-phenyl[1,1'-binaphthalen]-2-olato-κO]}(2-)nitrosyl-, (OC-6-34)- (9CI) (CA INDEX NAME)

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REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 29 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:397832 CAPLUS
 DOCUMENT NUMBER: 136:401527
 TITLE: Method for preparation of optically active ruthenium complexes and optically active alcohols using them
 Hirayama, Naoki; Shibayama, Katsuhiko
 INVENTOR(S):
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002155096	A	20020528	JP 2001-130609	20010427
PRIORITY APPLN. INFO.:			JP 2000-142484	A 20000515
OTHER SOURCE(S):	CASREACT 136:401527; MARPAT 136:401527			
GI				

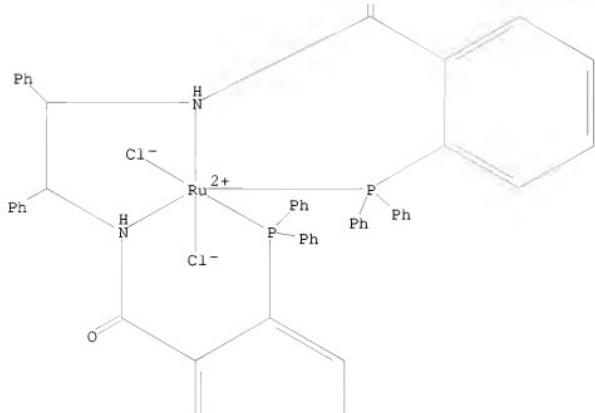
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

- AB Optically active alcs. are prepared by asym. reduction (asym. hydrogenation) of a wide range of carbonyl compds. such as aliphatic carbonyl compds. (typically β -keto esters) and aromatic ketones using an asym. reducing agent having a readily available and inexpensive optically active amide as the asym. source. In particular, optically active tetridentate ruthenium complexes consisting of ruthenium and an optically active compound having two phosphines and two amide linkages in the same mol. [I and II; R₁ = H, (un)substituted hydrocarbyl; R₂ and R₃ are same or different group selected from H and (un)substituted hydrocarbyl; Y = Ph, Me, Et, Pr, cyclohexyl] are used for the above asym. reduction. Thus, 1.51 g (R,R)-N,N'-bis[ω -(diphenylphosphino)benzoyl]cyclohexane-1,2-diamine (preparation given) and 1.15 g ruthenium(II) dichloride di-Me sulfide complex were added to 200 mL toluene and refluxed for 5 h under N to give 70% ruthenium complex (III). III (146 mg), 3.95 g 4-chloro-3-oxobutanoic acid Et ester, 32 mg KOH were added to 30 mL ethanol in a 100-mL autoclave under Ar and vigorously stirred at 100° under H atmospheric at 10 atm to give 95% (S)-4-chloro-3-hydroxybutanoic acid Et ester (19% ee).
- IT 431877-91-7P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (method for preparation of optically active ruthenium complexes and optically active alcs. by asym. reduction (hydrogenation) of ketones using them)
- RN 431877-91-7 CAPLUS
 CN Ruthenium, dichloro[N,N'-(1,2-diphenyl-1,2-ethanediyl)bis[2-(diphenylphosphino- κ P)benzamide- κ N]]- (CA INDEX NAME)

PAGE 1-A

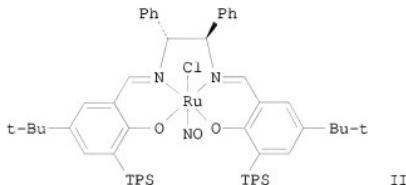
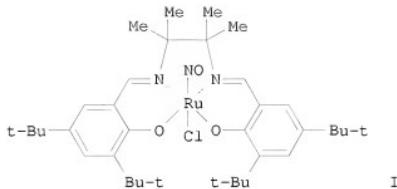


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L14 ANSWER 30 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:303917 CAPLUS
DOCUMENT NUMBER: 137:294842
TITLE: Catalytic aerobic oxidation of diols under
photoirradiation: highly efficient synthesis of
lactols
AUTHOR(S): Miyata, Atsushi; Furukawa, Mizuki; Irie, Ryo; Katsuki,
Tsutomu
CORPORATE SOURCE: Graduate School, Faculty of Science, Department of
Chemistry, Kyushu University 33 CREST, JST (Japan
Science and Technology), Higashi-ku, Fukuoka,
812-8581, Japan
SOURCE: Tetrahedron Letters (2002), 43(19), 3481-3484
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:294842
GI



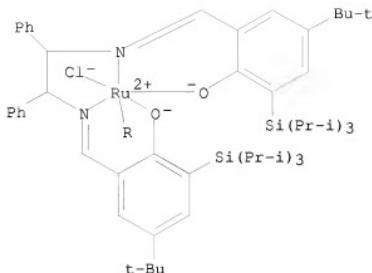
AB Aerobic oxidation of 1,*n*- and 1,*o*-diols with (ON)Ru(salen) complex I as catalyst was found to give lactols in almost quant. yields. Furthermore, in the oxidation of 2,2-dimethylalkane-1,*o*-diols, less sterically hindered *o*-alcs. were found to be preferentially oxidized when (ON)Ru(salen) complex II was used as the catalyst. N-Decanol was preferentially oxidized in the presence of 2,2-dimethyl-1-propanol when II was the catalyst.

IT 470464-92-7

RL: CAT (Catalyst use); USES (Uses)
(catalytic aerobic oxidation of diols under photoirradn. for highly efficient synthesis of lactols)

RN 470464-92-7 CAPLUS

CN Ruthenium, chloro[rel-2,2'-([(1R,2R)-1,2-diphenyl-1,2-ethanediyl]bis[(nitrilo- κ N)methylidyne]]bis[4-(1,1-dimethylethyl)-6-[tris(1-methylethyl)silyl]phenolato- κ O]](2-)nitrosyl-, (OC-6-34)- (9CI) (CA INDEX NAME)



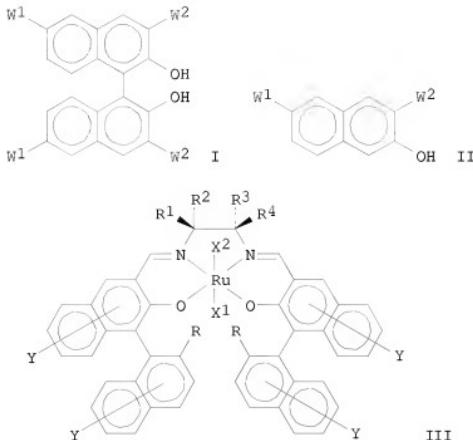
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 31 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:205043 CAPLUS
 DOCUMENT NUMBER: 136:247412
 TITLE: Preparation of optically-active 2,2'-binaphthol derivatives

INVENTOR(S): Kazuki, Tsutomu
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002080415	A	20020319	JP 2000-266380	20000904
PRIORITY APPLN. INFO.:			JP 2000-266380	20000904
OTHER SOURCE(S): GI			CASREACT 136:247412; MARPAT 136:247412	

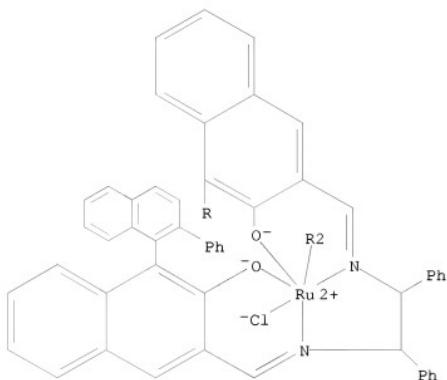


AB The title optically active derivs. I [W1, W2 = H, C1-6 alkyl, cycloalkyl, C2-6 alkenyl, cycloalkenyl, C2-6 alkynyl, cycloalkynyl (these aliphatic group may be substituted with halo, silyl, Ph), Cl1-6 alkoxy, Ph, Cl1-5 alkylcarbonyl, Cl1-5 alkoxy carbonyl, halo; Ph may be substituted with halo, Cl1-4 alkyl, Cl1-4 alkoxy, cyano, NO2] or their enantiomers, useful as synthetic intermediates and chiral ligands, are prepared by treating 2-naphthol derivs. II (W1, W2 = same as above) with O-containing gas in the presence of optically active Ru complexes III [R1-R4 = H, Cl1-8 (halo)alkyl, (halo)cycloalkyl, Ph which may be substituted with halo, Cl1-4 alkyl, Cl1-4 alkoxy, cyano, NO2; 2 of R1-R4 may be bonded together to form a C4-8 ring; R = any group given for R1-R4, Cl1-4 alkoxy, Cl1-5 alkylcarbonyl, Cl1-5 alkylcarbonyloxy, Cl1-5 alkoxy carbonyl, substituted silyl; X1, X2 = Cl1-5 (halo)alkylcarbonyloxy, (halo)arylcarbonyloxy, Cl1-4 (halo)alkylsulfonyloxy, (halo)arylsulfonyloxy, halo, OH, PF6, ClO4, BF4, NO3, 1/2CO3, 1/2SO4, 1/3PO4, NO; Y = H, halo, Cl1-4 alkyl, Cl1-4 alkoxy, NO3, cyano] and light. A mixture of 6-bromo-2-naphthol, optically active Ru complex IV (preparation given), and toluene was stirred under irradiation with

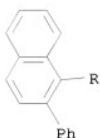
- a halogen lamp at 25° for 24 h to give (R)-6,6'-dibromo-2,2'-dihydroxynaphthalene with 68% e.e.
- IT 313401-38-6P
RL: CAT (Catalyst use); IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of optically active binaphthols by photochem. coupling of naphthols using Ru complexes)
- RN 313401-38-6 CAPLUS
- CN Ruthenium, chloro[(1R,1'R')-3,3''-[(1R,2R)-1,2-diphenyl-1,2-ethanediyl]bis(nitrilo- κ N)methylidyne]bis[2'-phenyl[1,1'

binaphthalen]-2-olato- κ O]](2-)nitrosyl-, (OC-6-34)- (9CI) (CA
INDEX NAME)

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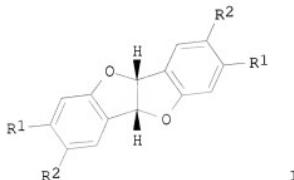


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L14 ANSWER 32 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:56179 CAPLUS
DOCUMENT NUMBER: 136:369625
TITLE: Asymmetric cyclization via oxygen cation radical:
enantioselective synthesis of
cis-4b,9b-dihydrobenzofuro[3,2-b]benzofurans
Masutani, Kouta; Irie, Ryo; Katsuki, Tsutomu
AUTHOR(S):

CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Graduate School, Kyushu University, 33, CREST. Japan Science and Technology (JST), Hakozaki, Higashi-ku, Fukuoka, 812-8581, Japan
SOURCE: Chemistry Letters (2002), (1), 36-37
PUBLISHER: CODEN: CMLTAG; ISSN: 0366-7022
DOCUMENT TYPE: Chemical Society of Japan
Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:369625
GI



AB Aerobic oxidative cyclization of 2,2'-dihydroxystilbenes via oxygen cation radical to give *cis*-4b,9b-dihydrobenzofuro[3,2-b]benzofurans, e.g., I (R1 = Me, R2 = H; R1 = H, R2 = Me), was carried out in an enantioselective manner (up to 89% ee) by using a (nitrosyl)Ru(salen) complex as the catalyst under photo-irradiation conditions.

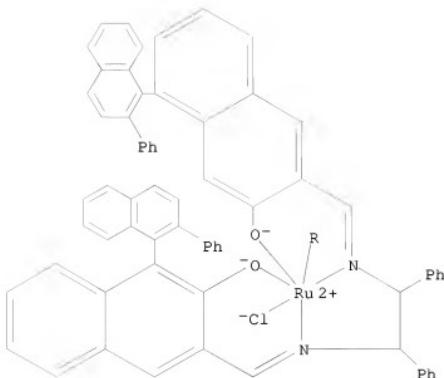
IT 425368-85-0

RL: CAT (Catalyst use); USES (Uses)
(asym. photocyclization of dihydroxystilbenes to
cis-4b,9b-dihydrobenzofuro[3,2-b]benzofurans with nitrosylruthenium
salen catalyst)

RN 425368-85-0 CAPLUS

CN Ruthenium, chloro[3-[[[(1R,2R)-2-[[[7-(hydroxy- κ O)-2'-phenyl[1,1'-binaphthalen]-6-yl)methylene]amino- κ N]-1,2-diphenylethyl]imino- κ N]methyl]-2'-phenyl[1,1'-binaphthalen]-2-olato(2-)- κ O]nitrosyl-, (OC-6-34)- (9CI) (CA INDEX NAME)

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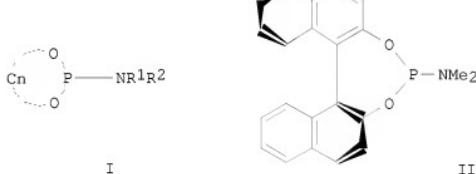


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 33 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:51478 CAPLUS
 DOCUMENT NUMBER: 136:102515
 TITLE: Preparation of catalysts for asymmetric transfer hydrogenation, and use thereof
 INVENTOR(S): Van den Berg, Michel; Minnaard, Adriaan Jacobus;
 Feringa, Ben; Gerardus de Vries, Johannes
 DSM N.V., Neth.
 PATENT ASSIGNEE(S): PCT Int. Appl., 27 pp.
 SOURCE: CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2002004466	A2	20020117	WO 2001-NL517	20010706

WO 2002004466 A3 20020328
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
 UZ, VN, YU, ZA, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 NL 1015655 C2 20020108 NL 2000-1015655 20000707
 CA 2414202 A1 20020117 CA 2001-2414202 20010706
 AU 2001071145 A 20020121 AU 2001-71145 20010706
 EP 1325013 A2 20030709 EP 2001-950115 20010706
 EP 1325013 B1 20060913
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 CN 1440416 A 20030903 CN 2001-812391 20010706
 CN 1289515 C 20061213
 JP 2004502543 T 20040129 JP 2002-509330 20010706
 HU 2004000519 A2 20040628 HU 2004-519 20010706
 HU 2004000519 A3 20051028
 CN 1827214 A 20060906 CN 2006-10066948 20010706
 AT 339430 T 20061015 AT 2001-950115 20010706
 ES 2271043 T3 20070416 ES 2001-950115 20010706
 CN 19740110 A 20070606 CN 2006-10149973 20010706
 IN 2003CN00015 A 20050408 IN 2003-CN15 20030103
 US 20030199713 A1 20031023 US 2003-332403 20030107
 US 6989461 B2 20060124
 PRIORITY APPLN. INFO.: NL 2000-1015655 A 20000707
 CN 2001-812391 A3 20010706
 WO 2001-NL517 W 20010706
 OTHER SOURCE(S): CASREACT 136:102515; MARPAT 136:102515
 GI



AB Catalyst for asym. (transfer) hydrogenation represented by the formula $M\text{La}^a\text{X}^b\text{S}^c$, [where M = rhodium or ruthenium; X = counter ion such as Cl^- , Br^- , BF_4^- , etc.; S = ligand such as COD, NBD, cyclopentadienyl, etc.; $a = 0.5$ to 3 ; b and c , each independently, $= 0$ to 2 ; L = chiral ligand I, where Cn together with the two O-atoms and the P-atom forms a substituted or non-substituted ring with 2-4 C-atoms, $R1$ and $R2$ each independently $= \text{H}$, an optionally substituted alkyl, aryl, alkaryl or aralkyl group or may

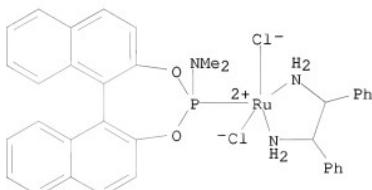
form a (heterocyclic) ring together with the N-atom to which they are bound], are described. A process for the use of such catalyst systems in the asym. (transfer) hydrogenation of olefinically unsatd. compds., or ketone, imine or oxime derivs., in the presence of a hydrogen donor, is also discussed. Thus, hexamethylphosphorus triamide was reacted with (S)-1,1'-bi-2-naphthol to give 88% (II). Phosphine II, in the presence of Rh(COD)2BF4, catalyzes the asym. transfer hydrogenation of 2-acetamidocinnamic acid Me ester with >98% conversion and >97% ee.

IT 389117-12-8

RL: CAT (Catalyst use); FMU (Formation, unclassified); FORM (Formation, nonpreparative); USES (Uses)
(preparation of catalysts for asym. transfer hydrogenation, and use thereof)

RN 389117-12-8 CAPLUS

CN Ruthenium, dichloro(N,N-dimethyldinaphtho[2,1-d:1',2'-f][1,3,2]dioxaphosphepin-4-amine-κP4)(1,2-diphenyl-1,2-ethanediamine-κN,κN')- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 34 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2002:51414 CAPLUS

DOCUMENT NUMBER: 136:102282

TITLE: Process for the preparation of β-amino alcohols
in syn configuration by diastereoselective
hydrogenation of α-amino carbonyl compounds

INVENTOR(S): Inoue, Tsutomu; Katayama, Eiji; Ooka, Hirohito; Sato,
Daisuke

PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan

SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

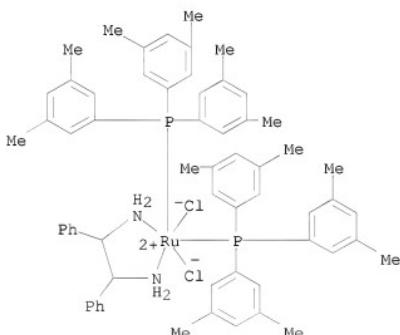
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002004401	A1	20020117	WO 2001-JP5941	20010709
W: CN, IN, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRIORITY APPLN. INFO.: JP 2000-208664 A 20000710

OTHER SOURCE(S): CASREACT 136:102282; MARPAT 136:102282
 AB Described is a process for the preparation of β -amino alcs. in syn configuration as represented by the general formula $\text{RaC}^*\text{H(OH)CH(Rb)Rc}$ [wherein Ra and Rc are each optionally substituted alkyl, cycloalkyl, alkenyl, aralkyl, aryl, or aryloxy; Rb is a group selected from among those represented by the formulas RICO(R2)N- , RICO(R1'CO)N- , $\text{RISO}_2\text{(R2)N-}$, and RIR2N- (wherein R1, R1', and R2 are hydrogen, each optionally substituted alkyl, alkoxy, cycloalkyl, cycloalkoxy, alkenyl, alkenyloxy, aralkyl, aralkyloxy, aryl, or aryloxy, or R1 and R2 or R1 and R1' are linked together to form a 5 to 8-membered heterocyclic ring; provided that when R2 is hydrogen, R1 is not alkoxy, cycloalkoxy, aryloxy, or aralkyloxy.); and C* represents an asym. carbon atom], which comprises reacting an α -amino carbonyl compound of the general formula RaCOCH(Rb)Rc (Ra, Rb, and Rc are same above) with hydrogen or a hydrogen donor in the presence of a transition metal compound and a base. Starting from readily available racemic α -amino carbonyl compds., this process gives syn- β -amino alcs. in high yields with high diastereoselectivity and enantioselectivity. Thus, 10 mL 2-propanol, 4 mL toluene, 5.6 mg [(S)-Xylyl-BINAP]Ru(II)Cl₂[(S,S)-DPEN] [Xylyl-BINAP = 2,2'-bis(di-3,5-dimethylphenylphosphino)-1,1'-binaphthyl; DPEN = diphenylethylenediamine], 0.5 N tBuOK/2-propanol (2.0 mL), 1.40 g 2-phthalimidopropiophenone were added to a metal autoclave, pressurized with H at 100 atm, and stirred at 25° for 18 h to give 79% syn-(+)-2-phthalimido-1-phenyl-1-propanol (96% ee).
 IT 320338-30-5

RL: CAT (Catalyst use); USES (Uses)
 (preparation of β -amino alcs. in syn configuration by
 diastereoselective hydrogenation of α -amino carbonyl compds.)
 RN 320338-30-5 CAPLUS
 CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 kN,kN']bis[tris(3,5-dimethylphenyl)phosphine]-, (OC-6-13)-
 (9CI) (CA INDEX NAME)



REFERENCE COUNT:

6

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 35 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2001:767505 CAPLUS
 DOCUMENT NUMBER: 135:331550
 TITLE: Preparation of amino compounds containing phosphines
 and their ruthenium complexes for alcohol synthesis
 INVENTOR(S): Hirayama, Naoki; Shibayama, Katsuhiro
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001294594	A	20011023	JP 2001-27792	20010205
PRIORITY APPLN. INFO.:			JP 2000-34129	A 20000210
OTHER SOURCE(S):	CASREACT 135:331550; MARPAT 135:331550			
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Complexes of ruthenium(II) and amino compds. I [R1, R2 = H, noncyclic hydrocarbyl, (un)substituted Ph; Ar = (un)substituted Ph; if R1 = R2 = H, then Ar ≠ Ph], II [R3 = noncyclic hydrocarbyl, (un)substituted Ph; R4, R5 = H, noncyclic hydrocarbyl, (un)substituted Ph; Ar = same as I], III [R6 = H, noncyclic hydrocarbyl, (un)substituted Ph; n = 0-1; Ar = same as I], or IV (R3, R6, Ar, n = same as above) are prepared. Alcs. are prep'd by reduction of ketones with hydrogen in the presence of the above complexes. E.g., (R,R)-N,N'-bis[2-(diphenylphosphino)benzyl]cyclohexane-1,2-diamine was reacted with dichlororuthenium-dimethylsulfoxide complex for 6 h to give a complex, in the presence of which acetophenone was hydrogenated with H2 in EtOH at 100° for 4 h to give ≥99% (S)-1-phenylethyl alc.

IT 369378-18-7P

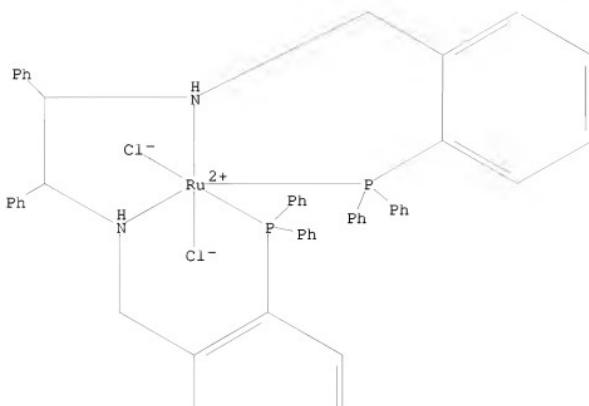
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(catalyst; preparation of amino compds. containing phosphines and their ruthenium complexes for alc. synthesis)

RN 369378-18-7 CAPLUS

CN Ruthenium, [(1R,2R)-N,N'-bis[[2-(diphenylphosphino-κP)phenyl]methyl]-1,2-diphenyl-1,2-ethanediamine-κN,κN']dichloro-, (OC-6-13)-(9CI) (CA INDEX NAME)

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L14 ANSWER 36 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2001:18934 CAPLUS
 DOCUMENT NUMBER: 134:100642
 TITLE: Method for preparation of optically active alcohols by hydrogentation of carbonyl compounds using transition metal-optically active amine complex
 INVENTOR(S): Katayama, Eiji; Inoue, Tsutomu
 PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001002610	A	20010109	JP 1999-169985	19990616

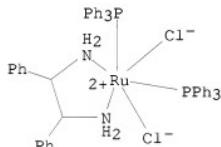
PRIORITY APPLN. INFO.: JP 1999-117238 A 19990423
 OTHER SOURCE(S): CASREACT 134:100642; MARPAT 134:100642
 AB Optically active alcs. represented by formula RaC^H(OH)Rb [Ra, Rb = (un)substituted alkyl, alkenyl, cycloalkyl, aralkyl, or aryl] are prepared by hydrogenation of ketones represented by formula RaCORb (Ra, Rb = same as above) in the presence of a mixture of a trivalent phosphorus compound not possessing an asym. center within the mol., transition metal compound, and optically active amine or the reaction product obtained from these compds. This process uses optically active amine as the only asym. source and other readily available compds. as the catalyst sources and provides a practical method for producing in high yields and high selectivity in an industrial scale, optically active alcs. which are useful as intermediates for drugs, agrochems., and liquid crystals. Thus, 5.4 mg bis[tris(3,5-xylyl)phosphine] ruthenium dichloride-(1S,2S)-1,2-diphenylethylenediamine complex (RuCl₂[(3,5-xylyl)₃P]₂(S,S)DPEN) (preparation given) and 6.44 g acetophenone were dissolved in 8 mL isopropanol in a pressure vessel, treated with t-BuOK/2-propanol (0.5 N, 0.5 mL), pressurized with H at 11 atm, and stirred at room temperature for 18 h to give 100% (R)-1-phenylethanol (87 %ee).

IT 320338-32-7 320338-33-8 320338-35-0
 320338-36-1 320338-38-3 320338-39-4
 320338-40-7 320338-42-9 320338-44-1
 320338-45-2

RL: CAT (Catalyst use); USES (Uses)
 (preparation of optically active alcs. by hydrogenation of carbonyl compds.
 using transition metal-optically active amine complex)

RN 320338-32-7 CAPLUS

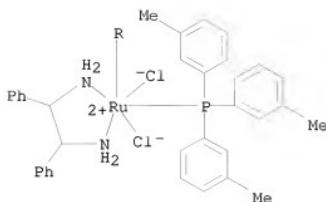
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis(triphenylphosphine)-, (OC-6-13)- (9CI) (CA INDEX
 NAME)



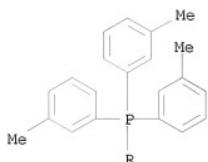
RN 320338-33-8 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis[tris(3-methylphenyl)phosphine]-, (OC-6-13)- (9CI)
 (CA INDEX NAME)

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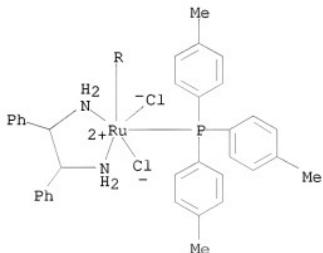
PAGE 2-A

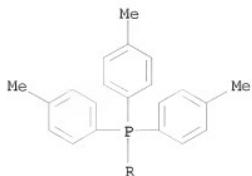


RN 320338-35-0 CAPLUS

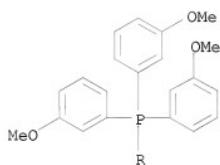
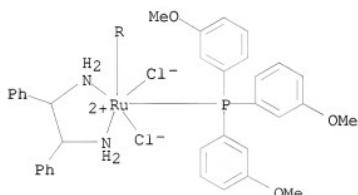
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[tris(4-methylphenyl)phosphine]-, (OC-6-13)- (9CI)
(CA INDEX NAME)

PAGE 1-A



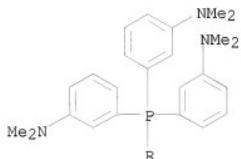
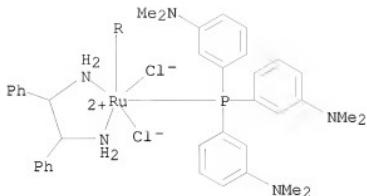


RN 320338-36-1 CAPLUS

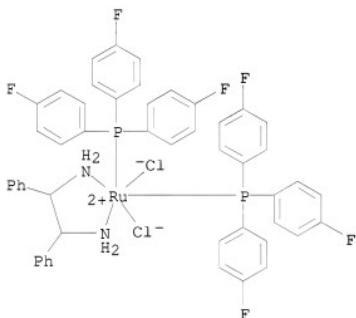
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[tris(3-methoxyphenyl)phosphine-κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)

RN 320338-38-3 CAPLUS

CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[3,3',3''-(phosphinidyne-κP)tris[N,N-
dimethylbenzeneamine]]-, (OC-6-13)- (9CI) (CA INDEX NAME)

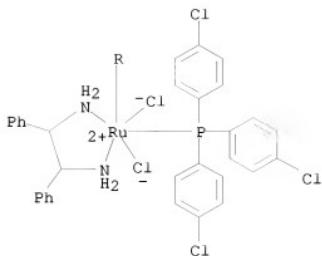


RN 320338-39-4 CAPLUS
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 $\kappa N,\kappa N'$]bis[tris(4-fluorophenyl)phosphine- κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)

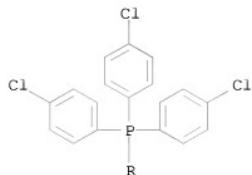


RN 320338-40-7 CAPLUS
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 $\kappa N,\kappa N'$]bis[tris(4-chlorophenyl)phosphine- κP]-,
(OC-6-13)- (9CI) (CA INDEX NAME)

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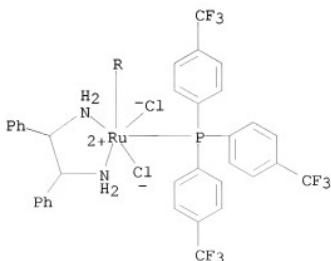


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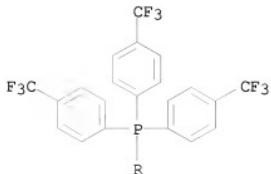


RN 320338-42-9 CAPLUS
 CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 κN,κN']bis[tris(4-(trifluoromethyl)phenyl)phosphine-κP]-
 , (OC-6-13)- (9CI) (CA INDEX NAME)

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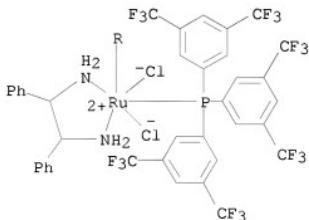


PAGE 2-A

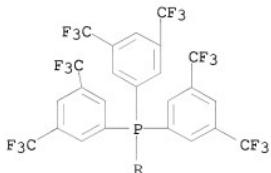


RN 320338-44-1 CAPLUS
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis[tris(3,5-bis(trifluoromethyl)phenyl)phosphine-
κP]-, (OC-6-13)- (9CI) (CA INDEX NAME)

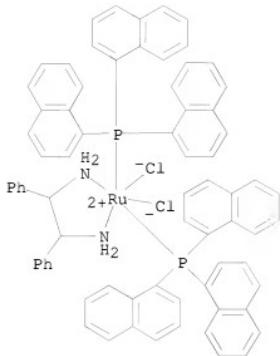
PAGE 1-A



PAGE 2-A



RN 320338-45-2 CAPLUS
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
κN,κN']bis(tri-1-naphthalenylphosphine)-, (OC-6-13)- (9CI)
(CA INDEX NAME)



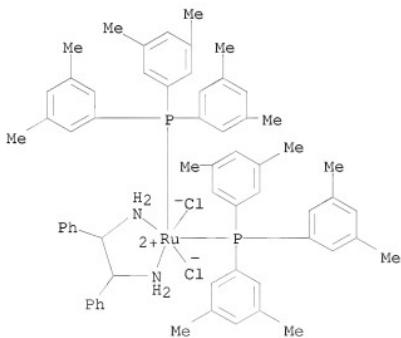
IT 320338-30-5P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)

(preparation of optically active alcs. by hydrogenation of carbonyl compds.
using transition metal-optically active amine complex)

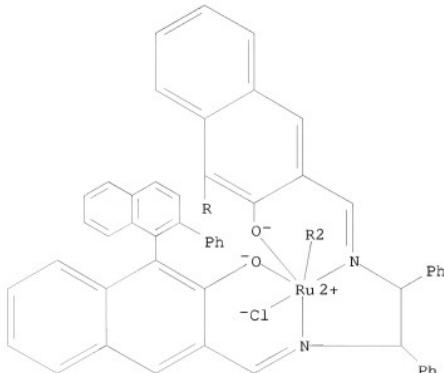
RN 320338-30-5 CAPLUS

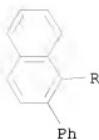
CN Ruthenium, dichloro[(1S,2S)-1,2-diphenyl-1,2-ethanediamine-
 $\kappa N,\kappa N'$]bis[tris(3,5-dimethylphenyl)phosphine]-, (OC-6-13)-
(9CI) (CA INDEX NAME)



L14 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2000:737781 CAPLUS
 DOCUMENT NUMBER: 134:56468
 TITLE: Asymmetric aerobic oxidative coupling of 2-naphthol derivatives catalyzed by photo-activated chiral (NO)Ru(II)-salen complex
 AUTHOR(S): Irie, Ryo; Masutani, Kouta; Katsuki, Tsutomu
 CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Graduate School, Kyushu University 33, Fukuoka, 812-8581, Japan
 SOURCE: Synlett (2000), (10), 1433-1436
 CODEN: SYNLett; ISSN: 0936-5214
 PUBLISHER: Georg Thieme Verlag
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 134:56468
 AB Optically active 2,2'-binaphthol (BINOL) derivs. were synthesized with moderate to good enantioselectivity via aerobic oxidative coupling of 2-naphthols using a chiral (NO)Ru(II)-salen complex as a catalyst under irradiation with visible light.
 IT 313401-38-6
 RL: CAT (Catalyst use); USES (Uses)
 (asym. aerobic oxidative coupling of naphthols catalyzed by photo-activated ruthenium salen complex)
 RN 313401-38-6 CAPLUS
 CN Ruthenium, chloro[[(1R,1''R)-3,3'-([(1R,2R)-1,2-diphenyl-1,2-ethanediyl]bis[(nitrilo-κN)methylidyne]bis[2'-phenyl[1,1'-binaphthalen]-2-olato-κO]](2-)nitrosyl-, (OC-6-34)- (9CI) (CA INDEX NAME)

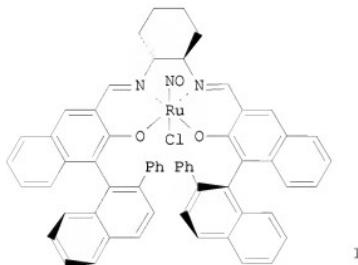
PAGE 1-A





REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 38 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2000:397972 CAPLUS
 DOCUMENT NUMBER: 133:192919
 TITLE: cis- and Enantio-selective cyclopropanation with chiral (ON)_nRu-salen complex as a catalyst
 AUTHOR(S): Uchida, Tatsuya; Irie, Ryo; Katsuki, Tsutomu
 CORPORATE SOURCE: Department of Molecular Chemistry, Graduate School of Science, Kyushu University 33, Fukuoka, 812-8581, Japan
 SOURCE: Tetrahedron (2000), 56(22), 3501-3509
 PUBLISHER: CODEN: TETRAB; ISSN: 0040-4020
 DOCUMENT TYPE: Elsevier Science Ltd.
 LANGUAGE: Journal
 OTHER SOURCE(S): English
 GI CASREACT 133:192919



AB Cyclopropanation of styrene with α -diazoacetate in the presence of (R,R)-(salen)ruthenium complex I in THF which dissolves the complex exhibits remarkable cis- and enantio-selectivity [cis:trans = 97:3 > 97% ee (1S,2R)], while the same reaction in hexane which does not dissolve it shows good but opposite sense of enantioselectivity [-83% ee (1R,2S)] together with moderate cis-selectivity (cis:trans = 68:32). In homogeneous and heterogeneous conditions, (salen)ruthenium complexes are considered to have different ligand-conformation which, in turn, causes the opposite sense of enantioface selectivity in the cyclopropanation.

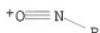
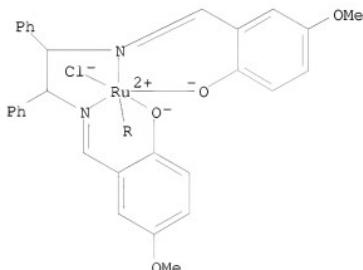
IT 244761-63-5P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(stereoselective prepn of arylcyclopropanes via cyclopropanation of arylalkenes with chiral (ON+)Ru-salen catalyst)

RN 244761-63-5 CAPLUS

CN Ruthenium, chloro[2,2'-{[(1R,2R)-1,2-diphenyl-1,2-ethanediyl]bis[(nitrilo- κN methylidyne)]bis[4-methoxyphenolato- κO]}(2-)]nitrosyl-, (OC-6-34)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 39 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:444676 CAPLUS

DOCUMENT NUMBER: 131:257263

TITLE: Chiral (ON)Ru-salen-catalyzed cyclopropanation. High cis- and enantioselectivity

AUTHOR(S): Uchida, Tatsuya; Irie, Ryo; Katsuki, Tsutomu

CORPORATE SOURCE: Department Molecular Chemistry, Graduate School Science, Kyushu Univ., Fukuoka, 812, Japan

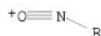
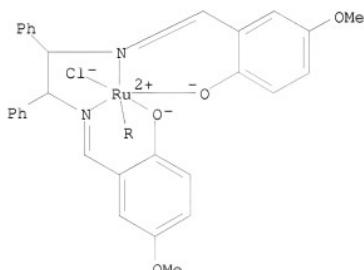
SOURCE: Synlett (1999), (7), 1163-1165

CODEN: SYNLSE; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

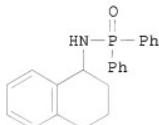
LANGUAGE: English
 OTHER SOURCE(S): CASREACT 131:257263
 AB A (R,R)-nitrosyl)(salen)ruthenium(II) complex was found to be an effective catalyst for cis-selective asym. cyclopropanation (<=89% ee) which was performed under sunlight coming through a window or incandescent light. Furthermore, a (R,R)-(nitrosyl)(hydroxy)(salen)ruthenium(II) complex was also found to show good cis- and enantioselectivities (<=92% ee) in the reaction in the dark.
 IT 244761-63-5
 RL: CAT (Catalyst use); USES (Uses)
 (salen)ruthenium-catalyzed asym. cyclopropanation)
 RN 244761-63-5 CAPLUS
 CN Ruthenium, chloro[2,2'-{[(1R,2R)-1,2-diphenyl-1,2-ethanediyl]bis[(nitrilo-
 κN)methylidyne]}bis[4-methoxyphenolato-κO]](2-)nitrosyl-,
 (OC-6-34)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 40 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1998:612059 CAPLUS
 DOCUMENT NUMBER: 129:202750
 ORIGINAL REFERENCE NO.: 129:41191a,41194a
 TITLE: Process for producing optically active amines
 INVENTOR(S): Mukaiyama, Teruaki; Sugi, Kiyoaki; Nagata, Takushi;
 Yamada, Toru
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
 SOURCE: PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9839276 W: JP, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE	A1	19980911	WO 1998-JP938 EP 1998-905797	19980306
EP 901996 EP 901996 R: DE, FR, GB, IT, NL	A1 B1	19990317 20060201		19980306
JP 4004547 US 6222072	B2 B1	20071107 20010424	JP 1998-537975 US 1998-186626 JP 1997-52061 WO 1998-JP938	19980306 19981106 A 19970306 W 19980306
PRIORITY APPLN. INFO.:				
OTHER SOURCE(S): GI		CASREACT 129:202750; MARPAT 129:202750		

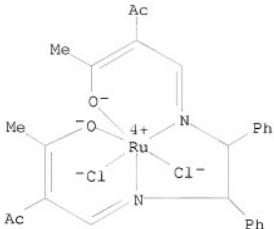


AB Characterized is a novel process for producing optically active amines useful as an intermediate for physiol. active compds. such as medicines and agricultural chems. or as a starting material for synthesizing functional materials, e.g., liquid crystals, fine chems., etc., which comprises the step of reacting an imine with a hydride reagent in the presence of an optically active metal compound and an alc. compound and/or carboxylic acid compound. Thus, compound (I) (preparation given) was treated with HCl/MeOH to give 98% 1,2,3,4-tetrahydro-1-naphthylamine with 98% ee.

IT 212250-97-0
RL: CAT (Catalyst use); USES (Uses)
(process for producing optically active amines)

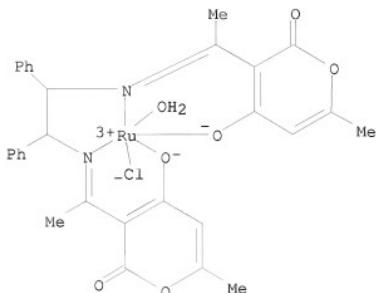
RN 212250-97-0 CAPLUS

CN Ruthenium, dichloro[{{(1R,2R)-1,2-diphenyl-1,2-ethanediyl}bis[(nitrilo- κ N)methylidyne]}]bis[4-(hydroxy- κ O)-3-penten-2-onato]](2-), (OC-6-12)- (9CI) (CA INDEX NAME)



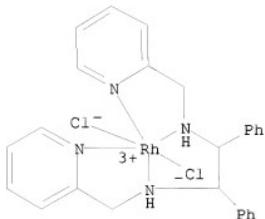
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 41 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1997:597503 CAPLUS
 DOCUMENT NUMBER: 127:293068
 ORIGINAL REFERENCE NO.: 127:57283a,57286a
 TITLE: Chiral Ru(III) metal complex-catalyzed aerobic enantioselective epoxidation of styrene derivatives with co-oxidation of aldehyde
 AUTHOR(S): Kureshy, R. I.; Khan, N. H.; Abdi, S. H. R.; Iyer, P.
 CORPORATE SOURCE: Central Salt and Marine Chemicals Research Institute, Bhavnagar -, 364 002, India
 SOURCE: Journal of Molecular Catalysis A: Chemical (1997), 124(2-3), 91-97
 CODEN: JMCCF2; ISSN: 1381-1169
 PUBLISHER: Elsevier
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 127:293068
 AB Ru(III) chiral Schiff base complexes derived from dehydroacetic acid with 1S,2S-(+)-diaminocyclohexane, 1R,2R-(-)-1,2-diphenylethylenediamine and S-(+)-1,2-diaminopropane have been prepared. The enantioselective epoxidn. of styrene and 4-chloro-, 4-nitro- and 4-methylstyrene was achieved by the combined use of mol. oxygen and sacrificial reductant isobutyraldehyde catalyzed by the above synthesized Ru(III) chiral Schiff base complexes. Good yields of the desired epoxides were obtained with styrene and 4-chlorostyrene by GLC. Enantiomeric excess of the epoxide was evaluated by 1H-NMR using chiral shift reagent Eu(hfc)3 and by chiral capillary column. The extent of enantioselectivity is shown in Hammett plots.
 IT 197145-67-8P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (chiral ruthenium complex-catalyzed aerobic enantioselective epoxidn. of styrene derivs. with co-oxidation of aldehyde)
 RN 197145-67-8 CAPLUS
 CN Ruthenium, aquachloro[{3,3'-(1,2-diphenyl-1,2-ethanediyl)bis[(nitrilo-κN)ethyldyne]}bis[4-(hydroxy-κO)-6-methyl-2H-pyran-2-onatol](2-)]-, [OC-6-34-[S-(R<sup>*>,R<sup>*>)]]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

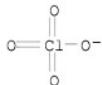
L14 ANSWER 42 OF 42 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1988:642931 CAPLUS
 DOCUMENT NUMBER: 109:242931
 ORIGINAL REFERENCE NO.: 109:39991a,39994a
 TITLE: Chiral metal complexes. 26. Metal complexes of the new stereospecific tetraamine ligand 3R,4R- and 3S,4S-diphenyl-1,6-di(2-pyridyl)-2,5-diazahexane
 Fenton, Ronald R.; Vagg, Robert S.; Williams, Peter A.
 Sch. Chem., Macquarie Univ., 2109, Australia
 SOURCE: Inorganica Chimica Acta (1988), 148(1), 37-44
 CODEN: ICHAA3; ISSN: 0020-1693
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB (RCH₂NHCHPh)₂ (R = 2-pyridyl) (picstien), based on stilbenediamine, was prepared in its racemic and enantiomeric forms. R,R-Picstien coordinates to Co(III) to give A-β-[Co(R,R-picstien)Cl₂]X.H₂O (X = Cl, ClO₄) stereospecifically; the complexes were characterized by NMR and chiroptical properties. The chloride donors in this cation undergo substitution by NO₂⁻ or C₂O₄²⁻ with full retention of its A-β topol. A Rh(III) analog of the dichloro complex also was isolated, and this has the same stereochem. The S,S antipode of the ligand was used to generate corresponding enantiomeric chelate forms.
 IT 117802-85-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and NMR and CD of)
 RN 117802-85-4 CAPLUS
 CN Rhodium(1+), dichloro[1,2-diphenyl-N,N'-bis(2-pyridinylmethyl)-1,2-ethanediamine-N,N',N'',N'''], stereoisomer, perchlorate (9CI) (CA INDEX NAME)
 CM 1
 CRN 117802-84-3
 CMF C26 H26 C12 N4 Rh
 CCI CCS



CM 2

CRN 14797-73-0

CMF Cl O4



=> log h
COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
237.88	522.94

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY	TOTAL SESSION
-34.44	-35.26

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 17:42:44 ON 29 JUN 2009